Swope, Sheridan

From: Schreiber, David
Sent: Wednesday, March 10, 2004 3:06 PM
To: Swope, Sheridan
Cc: O'Bryen, Barbara
Subject: Proposal 09/966,880

The full run that you would requested would take 65 hours of run time. As I mentioned, we are proposing to run seq 9, std & oligo, interference databases and seq 10 and 11, std & oligo, in all databases including interference. The run time for our proposed search is about 31 hours. We have at least 80 hours in each queue including the dedicated rush queue.

David Schreiber, Ph.D.
Scientific and Technical Information Center
Biotech/Chem Library
Old address and phone:
CM1-6A03
703-308-4292
New address and phone:
Remsen E01A61
571-272-2526

Swope, Sheridan

From: Swope, Sheridan
Sent: Wednesday, March 10, 2004 8:10 PM
To: Schreiber, David
Subject: RE: Proposal 09/966,880

David, Thanks for contacting me on this.
Let's do the following.

An oligo search on SID 7 would encompass an oligo search of SID 11-15.

A.
Interference search sid 9; full-length and oligo.
Search and Interference Search sid 10; full-length and oligo.

B.
After I analyze the results:
If there are any oligo hits for Sid 9, align the hits with sid 11.
If there are any oligo hits for Sid 10, align the hits with sid 12-15.

Let me know how long you think A will take.

Thanks!

Note: SID 9 comprises sid 11
SID 10 comprises sid 12-15.

-----Original Message-----
From: Schreiber, David
Sent: Wednesday, March 10, 2004 3:06 PM
To: Swope, Sheridan
Cc: O'Bryen, Barbara
Subject: Proposal 09/966,880

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GenCore version 5.1.6

OM nucleic - nucleic search, using sw model

Run on: March 10, 2004, 13:38:36 ; Search time 47.087 Seconds
(without alignments)
3.483 Million cell updates/sec

Title: US-09-966-880A-9
Perfect score: 5514
Sequence: 1 acagacgaatacatggtcca.....tcaaactcctgacctcagag 5514

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 0.5

Searched: 7 seqs, 14872 residues

Total number of hits satisfying chosen parameters: 14

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : US09966880A.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	5512.8	100.0	5514	1	US-09-966-880A-9	Sequence 9, Appli
c 2	178.6	3.2	2172	1	US-09-966-880A-15	Sequence 15, Appl
c 3	178.6	3.2	6564	1	US-09-966-880A-10	Sequence 10, Appl
4	174.2	3.2	2172	1	US-09-966-880A-15	Sequence 15, Appl
5	174.2	3.2	6564	1	US-09-966-880A-10	Sequence 10, Appl
c 6	109.3	2.0	5514	1	US-09-966-880A-9	Sequence 9, Appli
7	87	1.6	87	1	US-09-966-880A-11	Sequence 11, Appl
c 8	18.3	0.3	148	1	US-09-966-880A-12	Sequence 12, Appl
c 9	17.6	0.3	271	1	US-09-966-880A-13	Sequence 13, Appl
10	16.2	0.3	116	1	US-09-966-880A-14	Sequence 14, Appl
11	16	0.3	271	1	US-09-966-880A-13	Sequence 13, Appl
12	15.4	0.3	148	1	US-09-966-880A-12	Sequence 12, Appl
c 13	14.8	0.3	116	1	US-09-966-880A-14	Sequence 14, Appl
c 14	14.4	0.3	87	1	US-09-966-880A-11	Sequence 11, Appl

ALIGNMENTS

RESULT 1
US-09-966-880A-9
; Sequence 9, Application US/09966880A
; GENERAL INFORMATION:
; APPLICANT: Honjo, Tasuku
; APPLICANT: Muramatsu, Masamichi
; TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
; FILE REFERENCE: 06501-088001
; CURRENT APPLICATION NUMBER: US/09/966,880A
; CURRENT FILING DATE: 2001-09-28
; PRIOR APPLICATION NUMBER: PCT/JP00/01918
; PRIOR FILING DATE: 2000-03-28
; PRIOR APPLICATION NUMBER: JP 11-371382
; PRIOR FILING DATE: 1999-12-27
; PRIOR APPLICATION NUMBER: JP 11-178999
; PRIOR FILING DATE: 1999-06-24
; PRIOR APPLICATION NUMBER: JP 11-87192
; PRIOR FILING DATE: 1999-03-29
; NUMBER OF SEQ ID NOS: 36
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
; LENGTH: 5514
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: intron
; LOCATION: (1)...(1031)
; FEATURE:
; NAME/KEY: exon
; LOCATION: (1032)...(1118)
; FEATURE:
; NAME/KEY: intron
; LOCATION: (1119)...(5514)
US-09-966-880A-9

Query Match 100.0%; Score 5512.8; DB 1; Length 5514;
Best Local Similarity 100.0%; Pred. No. 1.3e-83;
Matches 5514; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 ACAGACGAATACATGGTCCAAGCTAGGGCTATTGATTTGAAAATCATCAAGGTATAGATG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 ACAGACGAATACATGGTCCAAGCTAGGGCTATTGATTTGAAAATCATCAAGGTATAGATG 60

Qy         61 GTATCAAAGGCTTGAGGCAGGAAGAGAGCAGAGACCCTAGCTGCATTGCTTAGCATTGCA 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GTATCAAAGGCTTGAGGCAGGAAGAGAGCAGAGACCCTAGCTGCATTGCTTAGCATTGCA 120

Qy        121 TCCCTAGCACCTGGCATAGTTTCCATTAACAGTAGGCATGAAGTATCTACTCAGTGAATA 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 TCCCTAGCACCTGGCATAGTTTCCATTAACAGTAGGCATGAAGTATCTACTCAGTGAATA 180

Qy        181 AATAGAATGCATATGGGCTACAGTAGGAGAGAGAAATAAAATCTTTAATAGACCAAGTTC 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 AATAGAATGCATATGGGCTACAGTAGGAGAGAGAAATAAAATCTTTAATAGACCAAGTTC 240

Qy        241 TATGAGAGCACAAAATTAAAGTCTTTTATTTGAAGATCTTAGCCTGTTTTCCAAATTCAG 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 TATGAGAGCACAAAATTAAAGTCTTTTATTTGAAGATCTTAGCCTGTTTTCCAAATTCAG 300

Qy        301 TGCAGCCAGTTAGACACTGATTCTGTCTGGTGAAACAAGCATTTTTGTATTTTGGGGGAC 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 TGCAGCCAGTTAGACACTGATTCTGTCTGGTGAAACAAGCATTTTTGTATTTTGGGGGAC 360

Qy        361 TGCTGCTGCTTCTGACTCCAAATTAAGGATTTTTTTTTTTTCTAAAAAAGATGGCTCATG 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 TGCTGCTGCTTCTGACTCCAAATTAAGGATTTTTTTTTTTTCTAAAAAAGATGGCTCATG 420

Qy        421 CAAAAATCACTCTTTGGTGTAAATATCTAGTCTTCAAGCAATTCTTGTAATGCAATCAGA 480
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        421 CAAAAATCACTCTTTGGTGTAAATATCTAGTCTTCAAGCAATTCTTGTAATGCAATCAGA 480

Qy        481 AAGAAAAAAATCCATGGTTTGGGAGGCAAAATTTTTGTGTTCTAAATTCTATATAACTGA 540
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        481 AAGAAAAAAATCCATGGTTTGGGAGGCAAAATTTTTGTGTTCTAAATTCTATATAACTGA 540

Qy        541 GTTCATTTGCTTAACTGCAAAGCAGGAGCTGCTAGTGCCTGTCTGTACTGAGGTTCAGAG 600
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        541 GTTCATTTGCTTAACTGCAAAGCAGGAGCTGCTAGTGCCTGTCTGTACTGAGGTTCAGAG 600

Qy        601 AGACTGTGGGAATATGGGGGAATTAGAGGCTATCTGAGGCTCTTCAACACAATAACCCAA 660
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        601 AGACTGTGGGAATATGGGGGAATTAGAGGCTATCTGAGGCTCTTCAACACAATAACCCAA 660

Qy        661 GAAGCTATTTAAATGCTCTTTAAGGTATTTACATAAATATTACTATTCTCATTGTGCTTT 720
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        661 GAAGCTATTTAAATGCTCTTTAAGGTATTTACATAAATATTACTATTCTCATTGTGCTTT 720
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Qy    721 TATTTTGTGTTATCATGATTATAATTGAAGTGTCTACTGTTACTGCCTCCTGATCTTTGC 780
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    721 TATTTTGTGTTATCATGATTATAATTGAAGTGTCTACTGTTACTGCCTCCTGATCTTTGC 780

Qy    781 TAGCTATGGAGCATGGACTGGGCTTTTAGAGCAGCAGCCCCAAAGGAACCTAAACATTAA 840
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    781 TAGCTATGGAGCATGGACTGGGCTTTTAGAGCAGCAGCCCCAAAGGAACCTAAACATTAA 840

Qy    841 AGCAGAGCTGCCCTCAATGGTTTAACCTGTGTGACTCTGCCTATGACAGCCCCACCCACC 900
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    841 AGCAGAGCTGCCCTCAATGGTTTAACCTGTGTGACTCTGCCTATGACAGCCCCACCCACC 900

Qy    901 CATCTTCACTGGATCCAAATCAGGAGCAAGGCCGTTGGGGTACCTGGTGGGGGTGATGCT 960
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    901 CATCTTCACTGGATCCAAATCAGGAGCAAGGCCGTTGGGGTACCTGGTGGGGGTGATGCT 960

Qy    961 GTCAGGGGAGGAGCCCAAAAGGGCAAGCTCAAATTTGAATGTGAAGGGCCAATGCACTGT 1020
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    961 GTCAGGGGAGGAGCCCAAAAGGGCAAGCTCAAATTTGAATGTGAAGGGCCAATGCACTGT 1020

Qy   1021 CAGACTGAGACAGAGAACCATCATTAATTGAAGTGAGATTTTTCTGGCCTGAGACTTGCA 1080
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1021 CAGACTGAGACAGAGAACCATCATTAATTGAAGTGAGATTTTTCTGGCCTGAGACTTGCA 1080

Qy   1081 GGGAGGCAAGAAGACACTCTGGACACCACTATGGACAGGTAAAGAGGCAGTCTTCTCGTG 1140
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1081 GGGAGGCAAGAAGACACTCTGGACACCACTATGGACAGGTAAAGAGGCAGTCTTCTCGTG 1140

Qy   1141 GGTGATTGCACTGGCCTTCCTCTCAGAGCAAATCTGAGTAATGAGACTGGTAGCTATCCC 1200
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1141 GGTGATTGCACTGGCCTTCCTCTCAGAGCAAATCTGAGTAATGAGACTGGTAGCTATCCC 1200

Qy   1201 TTTCTCTCATGTAACTGTCTGACTGATAAGATCAGCTTGATCAATATGCATATATATTTTT 1260
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1201 TTTCTCTCATGTAACTGTCTGACTGATAAGATCAGCTTGATCAATATGCATATATATTTTT 1260

Qy   1261 TTGATCTGTCTCCTTTTCTTCTATTCAGATCTTATACGCTGTCAGCCCAATTCTTTCTGT 1320
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1261 TTGATCTGTCTCCTTTTCTTCTATTCAGATCTTATACGCTGTCAGCCCAATTCTTTCTGT 1320

Qy   1321 TTCAGACTTCTCTTGATTTCCCTCTTTTTCATGTGGCAAAAGAAGTAGTGCGTACAATGT 1380
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1321 TTCAGACTTCTCTTGATTTCCCTCTTTTTCATGTGGCAAAAGAAGTAGTGCGTACAATGT 1380

Qy   1381 ACTGATTCGTCCTGAGATTTGTACCATGGTTGAAACTAATTTATGGTAATAATATTAACA 1440
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1381 ACTGATTCGTCCTGAGATTTGTACCATGGTTGAAACTAATTTATGGTAATAATATTAACA 1440

Qy   1441 TAGCAAATCTTTAGAGACTCAAATCATGAAAAGGTAATAGCAGTACTGTACTAAAAACGG 1500
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1441 TAGCAAATCTTTAGAGACTCAAATCATGAAAAGGTAATAGCAGTACTGTACTAAAAACGG 1500

Qy   1501 TAGTGCTAATTTTCGTAATAATTTTGTAAATATTCAACAGTAAAACAACTTGAAGACACA 1560
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1501 TAGTGCTAATTTTCGTAATAATTTTGTAAATATTCAACAGTAAAACAACTTGAAGACACA 1560

Qy   1561 CTTTCCTAGGGAGGCGTTACTGAAATAATTTAGCTATAGTAAGAAAATTTGTAATTTTAG 1620
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1561 CTTTCCTAGGGAGGCGTTACTGAAATAATTTAGCTATAGTAAGAAAATTTGTAATTTTAG 1620

Qy   1621 AAATGCCAAGCATTCTAAATTAATTGCTTGAAAGTCACTATGATTGTGTCCATTATAAGG 1680
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1621 AAATGCCAAGCATTCTAAATTAATTGCTTGAAAGTCACTATGATTGTGTCCATTATAAGG 1680

Qy   1681 AGACAAATTCATTCAAGCAAGTTATTTAATGTTAAAGGCCCAATTGTTAGGCAGTTAATG 1740
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1681 AGACAAATTCATTCAAGCAAGTTATTTAATGTTAAAGGCCCAATTGTTAGGCAGTTAATG 1740

Qy   1741 GCACTTTTACTATTAACTAATCTTTCCATTTGTTCAGACGTAGCTTAACTTACCTCTTAG 1800
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1741 GCACTTTTACTATTAACTAATCTTTCCATTTGTTCAGACGTAGCTTAACTTACCTCTTAG 1800

Qy   1801 GTGTGAATTTGGTTAAGGTCCTCATAATGTCTTTATGTGCAGTTTTTGATAGGTTATTGT 1860
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1801 GTGTGAATTTGGTTAAGGTCCTCATAATGTCTTTATGTGCAGTTTTTGATAGGTTATTGT 1860

Qy   1861 CATAGAACTTATTCTATTCCTACATTTATGATTACTATGGATGTATGAGAATAACACCTA 1920
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1861 CATAGAACTTATTCTATTCCTACATTTATGATTACTATGGATGTATGAGAATAACACCTA 1920

Qy   1921 ATCCTTATACTTTACCTCAATTTAACTCCTTTATAAAGAACTTACATTACAGAATAAAGA 1980
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1921 ATCCTTATACTTTACCTCAATTTAACTCCTTTATAAAGAACTTACATTACAGAATAAAGA 1980

Qy   1981 TTTTTTAAAAATATATTTTTTTTGTAGAGACAGGGTCTTAGCCCAGCCGAGGCTGGTCTCT 2040
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1981 TTTTTTAAAAATATATTTTTTTTGTAGAGACAGGGTCTTAGCCCAGCCGAGGCTGGTCTCT 2040

Qy   2041 AAGTCCTGGCCCAAGCGATCCTCCTGCCTGGGCCTCCTAAAGTGCTGGAATTATAGACAT 2100
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2041 AAGTCCTGGCCCAAGCGATCCTCCTGCCTGGGCCTCCTAAAGTGCTGGAATTATAGACAT 2100

Qy   2101 GAGCCATCACATCCAATATACAGAATAAAGATTTTTAATGGAGGATTTAATGTTCTTCAG 2160
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2101 GAGCCATCACATCCAATATACAGAATAAAGATTTTTAATGGAGGATTTAATGTTCTTCAG 2160

Qy   2161 AAAATTTTCTTGAGGTCAGACAATGTCAAATGTCTCCTCAGTTTACACTGAGATTTTGAA 2220
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2161 AAAATTTTCTTGAGGTCAGACAATGTCAAATGTCTCCTCAGTTTACACTGAGATTTTGAA 2220

Qy   2221 AACAAGTCTGAGCTATAGGTCCTTGTGAAGGGTCCATTGGAAATACTTGTTCAAAGTAAA 2280
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2221 AACAAGTCTGAGCTATAGGTCCTTGTGAAGGGTCCATTGGAAATACTTGTTCAAAGTAAA 2280

Qy   2281 ATGGAAAGCAAAGGTAAAATCAGCAGTTGAAATTCAGAGAAAGACAGAAAAGGAGAAAAG 2340
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2281 ATGGAAAGCAAAGGTAAAATCAGCAGTTGAAATTCAGAGAAAGACAGAAAAGGAGAAAAG 2340

Qy   2341 ATGAAATTCAACAGGACAGAAGGGAAATATATTATCATTAAGGAGGACAGTATCTGTAGA 2400
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2341 ATGAAATTCAACAGGACAGAAGGGAAATATATTATCATTAAGGAGGACAGTATCTGTAGA 2400

Qy   2401 GCTCATTAGTGATGGCAAAATGACTTGGTCAGGATTATTTTTAACCCGCTTGTTTCTGGT 2460
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2401 GCTCATTAGTGATGGCAAAATGACTTGGTCAGGATTATTTTTAACCCGCTTGTTTCTGGT 2460

Qy   2461 TTGCACGGCTGGGGATGCAGCTAGGGTTCTGCCTCAGGGAGCACAGCTGTCCAGAGCAGC 2520
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2461 TTGCACGGCTGGGGATGCAGCTAGGGTTCTGCCTCAGGGAGCACAGCTGTCCAGAGCAGC 2520

Qy   2521 TGTCAGCCTGCAAGCCTGAAACACTCCCTCGGTAAAGTCCTTCCTACTCAGGACAGAAAT 2580
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2521 TGTCAGCCTGCAAGCCTGAAACACTCCCTCGGTAAAGTCCTTCCTACTCAGGACAGAAAT 2580

Qy   2581 GACGAGAACAGGGAGCTGGAAACAGGCCCCTAACCAGAGAAGGGAAGTAATGGATCAACA 2640
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2581 GACGAGAACAGGGAGCTGGAAACAGGCCCCTAACCAGAGAAGGGAAGTAATGGATCAACA 2640

Qy   2641 AAGTTAACTAGCAGGTCAGGATCACGCAATTCATTTCACTCTGACTGGTAACATGTGACA 2700
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2641 AAGTTAACTAGCAGGTCAGGATCACGCAATTCATTTCACTCTGACTGGTAACATGTGACA 2700

Qy   2701 GAAACAGTGTAGGCTTATTGTATTTTCATGTAGAGTAGGACCCAAAAATCCACCCAAAGT 2760
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2701 GAAACAGTGTAGGCTTATTGTATTTTCATGTAGAGTAGGACCCAAAAATCCACCCAAAGT 2760

Qy   2761 CCTTTATCTATGCCACATCCTTCTTATCTATACTTCCAGGACACTTTTTCTTCCTTATGA 2820
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2761 CCTTTATCTATGCCACATCCTTCTTATCTATACTTCCAGGACACTTTTTCTTCCTTATGA 2820

Qy   2821 TAAGGCTCTCTCTCTCTCCACACACACACACACACACACACACACACACACACACACACA 2880
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2821 TAAGGCTCTCTCTCTCTCCACACACACACACACACACACACACACACACACACACACACA 2880

Qy   2881 CACAAACACACACCCCGCCAACCAAGGTGCATGTAAAAAGATGTAGATTCCTCTGCCTTT 2940
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Db      2881 CACAAACACACACCCCGCCAACCAAGGTGCATGTAAAAAGATGTAGATTCCTCTGCCTTT 2940
Qy      2941 CTCATCTACACAGCCCAGGAGGGTAAGTTAATATAAGAGGGATTTATTGGTAAGAGATGA 3000
Db      2941 CTCATCTACACAGCCCAGGAGGGTAAGTTAATATAAGAGGGATTTATTGGTAAGAGATGA 3000
Qy      3001 TGCTTAATCTGTTTAACACTGGGCCTCAAAGAGAGAATTTCTTTTCTTCTGTACTTATTA 3060
Db      3001 TGCTTAATCTGTTTAACACTGGGCCTCAAAGAGAGAATTTCTTTTCTTCTGTACTTATTA 3060
Qy      3061 AGCACCTATTATGTGTTGAGCTTATATATACAAAGGGTTATTATATGCTAATATAGTAAT 3120
Db      3061 AGCACCTATTATGTGTTGAGCTTATATATACAAAGGGTTATTATATGCTAATATAGTAAT 3120
Qy      3121 AGTAATGKTGGTTGGTACTATGGTAATTACCATAAAAATTAWTATCCTTTTAAAATAAAG 3180
Db      3121 AGTAATGKTGGTTGGTACTATGGTAATTACCATAAAAATTAWTATCCTTTTAAAATAAAG 3180
Qy      3181 CTAATTATTATTGGATCTTTTTTAGTATTCATTTTATGTTTTTTATGTTTTTGATTTTTT 3240
Db      3181 CTAATTATTATTGGATCTTTTTTAGTATTCATTTTATGTTTTTTATGTTTTTGATTTTTT 3240
Qy      3241 AAAAGACAATCTCACCCTGTTACCCAGGCTGGAGTGCAGTGGTGCAATCATAGCTTTCTG 3300
Db      3241 AAAAGACAATCTCACCCTGTTACCCAGGCTGGAGTGCAGTGGTGCAATCATAGCTTTCTG 3300
Qy      3301 CAGTCTTGAACTCCTGGGCTCAAGCAATCCTCCTGCCTTGGCCTCCCAAAGTGTTGGGAT 3360
Db      3301 CAGTCTTGAACTCCTGGGCTCAAGCAATCCTCCTGCCTTGGCCTCCCAAAGTGTTGGGAT 3360
Qy      3361 ACAGTCATGAGCCACTGCATCTGGCCTAGGATCCATTTAGATTAAAATATGCATTTTAAA 3420
Db      3361 ACAGTCATGAGCCACTGCATCTGGCCTAGGATCCATTTAGATTAAAATATGCATTTTAAA 3420
Qy      3421 TTTTAAAATAATATGGCTAATTTTTACCTTATGTAATGTGTATACTGGTAATAAATCTAG 3480
Db      3421 TTTTAAAATAATATGGCTAATTTTTACCTTATGTAATGTGTATACTGGTAATAAATCTAG 3480
Qy      3481 TTTGCTGCCTAAAGTTTAAAGTGCTTTCCAATAAGCTTCATGTACGTGAGGGGAGACATT 3540
Db      3481 TTTGCTGCCTAAAGTTTAAAGTGCTTTCCAATAAGCTTCATGTACGTGAGGGGAGACATT 3540
Qy      3541 TAAAGTGAAACAGACAGCCAGGTGTGGTGGCTCACGCCTGTAATCCCAGCACTCTGGGAG 3600
Db      3541 TAAAGTGAAACAGACAGCCAGGTGTGGTGGCTCACGCCTGTAATCCCAGCACTCTGGGAG 3600
Qy      3601 GCTGAGGTGGGTGGATCGCTTGAGCCCTGGAGTTCAAGACCAGCCTGAGCAACATGGCAA 3660
Db      3601 GCTGAGGTGGGTGGATCGCTTGAGCCCTGGAGTTCAAGACCAGCCTGAGCAACATGGCAA 3660
Qy      3661 AACCCTGTTTCTATAACAAAAATTAGCCGGGCATGGTGGCATGTGCCTGTGGTCCCAGCT 3720
Db      3661 AACCCTGTTTCTATAACAAAAATTAGCCGGGCATGGTGGCATGTGCCTGTGGTCCCAGCT 3720
Qy      3721 ACTAGGGGGCTGAGGCAGGAGAATCTTTGGAGCCCAGGAGGTCAAGGCTGCACTGAGCAG 3780
Db      3721 ACTAGGGGGCTGAGGCAGGAGAATCTTTGGAGCCCAGGAGGTCAAGGCTGCACTGAGCAG 3780
Qy      3781 TGCTTGCGCCACTGCACTCCAGCCTGGGTGACAGGACCAGACCTTGCCTCAAAAAAATAA 3840
Db      3781 TGCTTGCGCCACTGCACTCCAGCCTGGGTGACAGGACCAGACCTTGCCTCAAAAAAATAA 3840
Qy      3841 GAAGAAAAATTAAAAATAAATGGAAACAACTACAAAGAGCTGTTGTCCTAGATGAGCTAC 3900
Db      3841 GAAGAAAAATTAAAAATAAATGGAAACAACTACAAAGAGCTGTTGTCCTAGATGAGCTAC 3900
Qy      3901 TTAGTTAGGCTGATATTTTGGTATTTAACTTTTAAAGTCAGGGTCTGTCACCTGCACTAC 3960
Db      3901 TTAGTTAGGCTGATATTTTGGTATTTAACTTTTAAAGTCAGGGTCTGTCACCTGCACTAC 3960
Qy      3961 ATTATTAAAATATCAATTCTCAATGTATATCCACACAAAGACTGGTACGTGAATGTTCAT 4020
Db      3961 ATTATTAAAATATCAATTCTCAATGTATATCCACACAAAGACTGGTACGTGAATGTTCAT 4020

Qy      4021 AGTACCTTTATTCACAAAACCCCAAAGTAGAGACTATCCAAATATCCATCAACAAGTGAA 4080
Db      4021 AGTACCTTTATTCACAAAACCCCAAAGTAGAGACTATCCAAATATCCATCAACAAGTGAA 4080
Qy      4081 CAAATAAACAAAATGTGCTATATCCATGCAATGGAATACCACCCTGCAGTACAAAGGAAG 4140
Db      4081 CAAATAAACAAAATGTGCTATATCCATGCAATGGAATACCACCCTGCAGTACAAAGGAAG 4140
Qy      4141 AAGCTACTTGGGGATGAATCCCAAAGTCATGACGCTAAATGAAAGAGTCAGACATGAAGG 4200
Db      4141 AAGCTACTTGGGGATGAATCCCAAAGTCATGACGCTAAATGAAAGAGTCAGACATGAAGG 4200
Qy      4201 AGGAGATAATGTATGCCATACGAAATTCTAGAAAATGAAAGTAACTTATAGTTACAGAAA 4260
Db      4201 AGGAGATAATGTATGCCATACGAAATTCTAGAAAATGAAAGTAACTTATAGTTACAGAAA 4260
Qy      4261 GCAAATCAGGGCAGGCATAGAGGCTCACACCTGTAATCCCAGCACTTTGAGAGGCCACGT 4320
Db      4261 GCAAATCAGGGCAGGCATAGAGGCTCACACCTGTAATCCCAGCACTTTGAGAGGCCACGT 4320
Qy      4321 GGGAAGATTGCTAGAACTCAGGAGTTCAAGACCAGCCTGGGCAACACAGTGAAACTCCAT 4380
Db      4321 GGGAAGATTGCTAGAACTCAGGAGTTCAAGACCAGCCTGGGCAACACAGTGAAACTCCAT 4380
Qy      4381 TCTCCACAAAAATGGGAAAAAAAGAAAGCAAATCAGTGGTTGTCCTGTGGGGAGGGGAAG 4440
Db      4381 TCTCCACAAAAATGGGAAAAAAAGAAAGCAAATCAGTGGTTGTCCTGTGGGGAGGGGAAG 4440
Qy      4441 GACTGCAAAGAGGGAAGAAGCTCTGGTGGGGTGAGGGTGGTGATTCAGGTTCTGTATCCT 4500
Db      4441 GACTGCAAAGAGGGAAGAAGCTCTGGTGGGGTGAGGGTGGTGATTCAGGTTCTGTATCCT 4500
Qy      4501 GACTGTGGTAGCAGTTTGGGGTGTTTACATCCAAAAATATTCGTAGAATTATGCATCTTA 4560
Db      4501 GACTGTGGTAGCAGTTTGGGGTGTTTACATCCAAAAATATTCGTAGAATTATGCATCTTA 4560
Qy      4561 AATGGGTGGAGTTTACTGTATGTAAATTATACCTCAATGTAAGAAAAAATAATGTGTAAG 4620
Db      4561 AATGGGTGGAGTTTACTGTATGTAAATTATACCTCAATGTAAGAAAAAATAATGTGTAAG 4620
Qy      4621 AAAAGTTTCAATTCTCTTGCCAGCAAACGTTATTCAAATTCCTGAGCCCTTTACTTCGCA 4680
Db      4621 AAAAGTTTCAATTCTCTTGCCAGCAAACGTTATTCAAATTCCTGAGCCCTTTACTTCGCA 4680
Qy      4681 AATTCTCTGCACTTCTGCCCCGTACCATTAGGTGACAGCACTAGCTCCACAAATTGGATA 4740
Db      4681 AATTCTCTGCACTTCTGCCCCGTACCATTAGGTGACAGCACTAGCTCCACAAATTGGATA 4740
Qy      4741 AATGCATTTCTGGAAAAGACTAGGGACAAAATCCAGGCATCACTTGTGCTTTCATATCAA 4800
Db      4741 AATGCATTTCTGGAAAAGACTAGGGACAAAATCCAGGCATCACTTGTGCTTTCATATCAA 4800
Qy      4801 CCACGCTGTACAGCTTGTGTTGCTGTCTGCAGCTGCAATGGGGACTCTTGATTTCTTTAA 4860
Db      4801 CCACGCTGTACAGCTTGTGTTGCTGTCTGCAGCTGCAATGGGGACTCTTGATTTCTTTAA 4860
Qy      4861 GGAAACTTGGGTTACCAGAGTATTTCCACAAATGCTATTCAAATTAGTGCTTATGATATG 4920
Db      4861 GGAAACTTGGGTTACCAGAGTATTTCCACAAATGCTATTCAAATTAGTGCTTATGATATG 4920
Qy      4921 CAAGACACTGTGCTAGGAGCCAGAAAACAAAGAGGAGGAGAAATCAGTCATTATGTGGGA 4980
Db      4921 CAAGACACTGTGCTAGGAGCCAGAAAACAAAGAGGAGGAGAAATCAGTCATTATGTGGGA 4980
Qy      4981 ACAACATAGCAAGATATTTAGATCATTTTGACTAGTTAAAAAAGCAGCAGAGTACAAAAT 5040
Db      4981 ACAACATAGCAAGATATTTAGATCATTTTGACTAGTTAAAAAAGCAGCAGAGTACAAAAT 5040
Qy      5041 CACACATGCAATCAGTATAATCCAAATCATGTAAATATGTGCCTGTAGAAAGACTAGAGG 5100
Db      5041 CACACATGCAATCAGTATAATCCAAATCATGTAAATATGTGCCTGTAGAAAGACTAGAGG 5100
```

```
Qy       5101 AATAAACACAAGAATCTTAACAGTCATTGTCATTAGACACTAAGTCTAATTATTATTATT 5160
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5101 AATAAACACAAGAATCTTAACAGTCATTGTCATTAGACACTAAGTCTAATTATTATTATT 5160

Qy       5161 AGACACTATGATATTTGAGATTTAAAAAATCTTTAATATTTTAAAATTTAGAGCTCTTCT 5220
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5161 AGACACTATGATATTTGAGATTTAAAAAATCTTTAATATTTTAAAATTTAGAGCTCTTCT 5220

Qy       5221 ATTTTTCCATAGTATTCAAGTTTGACAATGATCAAGTATTACTCTTTCTTTTTTTTTTTT 5280
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5221 ATTTTTCCATAGTATTCAAGTTTGACAATGATCAAGTATTACTCTTTCTTTTTTTTTTTT 5280

Qy       5281 TTTTTTTTTTTTTGAGATGGAGTTTTGGTCTTGTTGCCCATGCTGGAGTGGAATGGCATG 5340
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5281 TTTTTTTTTTTTTGAGATGGAGTTTTGGTCTTGTTGCCCATGCTGGAGTGGAATGGCATG 5340

Qy       5341 AYCATAGCTCACTGCAACCTCCACCTCCTGGGTTCAAGCAAAGCTGTCGCCTCAGCCTCC 5400
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5341 AYCATAGCTCACTGCAACCTCCACCTCCTGGGTTCAAGCAAAGCTGTCGCCTCAGCCTCC 5400

Qy       5401 CGGGTAGATGGGATTACAGGCGCCCACCACCACACTCGGCTAATGTTTGTATTTTTAGTA 5460
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5401 CGGGTAGATGGGATTACAGGCGCCCACCACCACACTCGGCTAATGTTTGTATTTTTAGTA 5460

Qy       5461 GAGATGGGGTTTCACCATGTTGGCCAGGCTGGTCTCAAACTCCTGACCTCAGAG 5514
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5461 GAGATGGGGTTTCACCATGTTGGCCAGGCTGGTCTCAAACTCCTGACCTCAGAG 5514
```

RESULT 2
US-09-966-880A-15/c
; Sequence 15, Application US/09966880A
; GENERAL INFORMATION:
; APPLICANT: Honjo, Tasuku
; APPLICANT: Muramatsu, Masamichi
; TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
; FILE REFERENCE: 06501-088001
; CURRENT APPLICATION NUMBER: US/09/966,880A
; CURRENT FILING DATE: 2001-09-28
; PRIOR APPLICATION NUMBER: PCT/JP00/01918
; PRIOR FILING DATE: 2000-03-28
; PRIOR APPLICATION NUMBER: JP 11-371382
; PRIOR FILING DATE: 1999-12-27
; PRIOR APPLICATION NUMBER: JP 11-178999
; PRIOR FILING DATE: 1999-06-24
; PRIOR APPLICATION NUMBER: JP 11-87192
; PRIOR FILING DATE: 1999-03-29
; NUMBER OF SEQ ID NOS: 36
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 2172
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-966-880A-15

Query Match 3.2%; Score 178.6; DB 1; Length 2172;
Best Local Similarity 83.1%; Pred. No. 1.1;
Matches 202; Conservative 1; Mismatches 40; Indels 0; Gaps 0;

```
Qy       5270 TTTTTTTTTTTTTTTTTTTTTTTTGAGATGGAGTTTTGGTCTTGTTGCCCATGCTGGAGT 5329
             | | | |||||||||||||||||| |||||  |||| ||| |||||| ||||| ||||||||
Db       1514 TCTCTCTTTTTTTTTTTTTTTCTGAGACAGAGTCTTGCTCTTGTCGCCCAGGCTGGAGT 1455

Qy       5330 GGAATGGCATGAYCATAGCTCACTGCAACCTCCACCTCCTGGGTTCAAGCAAAGCTGTCG 5389
             | || |||| ||:|  |||| ||||||||||||||||||||||||||||| |  ||   |
Db       1454 GCAACGGCACGATCTCAGCTTACTGCAACCTCCACCTCCTGGGTTCAAGCGATTCTCCTG 1395

Qy       5390 CCTCAGCCTCCCGGGTAGATGGGATTACAGGCGCCCACCACCACACTCGGCTAATGTTTG 5449
             |||||||||||  |||| |||||||||||| |||  | |||||  |  ||||||| ||||
Db       1394 CCTCAGCCTCCCAAGTAGCTGGGATTACAGGTGCCTGCTACCACGCCTGGCTAATTTTTG 1335

Qy       5450 TATTTTTAGTAGAGATGGGGTTTCACCATGTTGGCCAGGCTGGTCTCAAACTCCTGACCT 5509
             |||||  ||||  |||  |||||||  ||||||||||||||||||||||||||||||||
```

```
Db       1334 CATTTTGAGTACAGACGGGGTTTTGCCATGTTGGCCAGGCTGGTCTCAAACTCCTGACCA 1275

Qy       5510 CAG 5512
             |||
Db       1274 CAG 1272
```

RESULT 3
US-09-966-880A-10/c
; Sequence 10, Application US/09966880A
; GENERAL INFORMATION:
; APPLICANT: Honjo, Tasuku
; APPLICANT: Muramatsu, Masamichi
; TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
; FILE REFERENCE: 06501-088001
; CURRENT APPLICATION NUMBER: US/09/966,880A
; CURRENT FILING DATE: 2001-09-28
; PRIOR APPLICATION NUMBER: PCT/JP00/01918
; PRIOR FILING DATE: 2000-03-28
; PRIOR APPLICATION NUMBER: JP 11-371382
; PRIOR FILING DATE: 1999-12-27
; PRIOR APPLICATION NUMBER: JP 11-178999
; PRIOR FILING DATE: 1999-06-24
; PRIOR APPLICATION NUMBER: JP 11-87192
; PRIOR FILING DATE: 1999-03-29
; NUMBER OF SEQ ID NOS: 36
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
; LENGTH: 6564
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-966-880A-10

Query Match 3.2%; Score 178.6; DB 1; Length 6564;
Best Local Similarity 83.1%; Pred. No. 1.8;
Matches 202; Conservative 1; Mismatches 40; Indels 0; Gaps 0;

```
Qy       5270 TTTTTTTTTTTTTTTTTTTTTTTTGAGATGGAGTTTTGGTCTTGTTGCCCATGCTGGAGT 5329
             | | | |||||||||||||||||| |||||  |||| ||| |||||| ||||| ||||||||
Db       5254 TCTCTCTTTTTTTTTTTTTTTCTGAGACAGAGTCTTGCTCTTGTCGCCCAGGCTGGAGT 5195

Qy       5330 GGAATGGCATGAYCATAGCTCACTGCAACCTCCACCTCCTGGGTTCAAGCAAAGCTGTCG 5389
             | || |||| ||:|  |||| ||||||||||||||||||||||||||||| |  ||   |
Db       5194 GCAACGGCACGATCTCAGCTTACTGCAACCTCCACCTCCTGGGTTCAAGCGATTCTCCTG 5135

Qy       5390 CCTCAGCCTCCCGGGTAGATGGGATTACAGGCGCCCACCACCACACTCGGCTAATGTTTG 5449
             |||||||||||  |||| |||||||||||| |||  | |||||  |  ||||||| ||||
Db       5134 CCTCAGCCTCCCAAGTAGCTGGGATTACAGGTGCCTGCTACCACGCCTGGCTAATTTTTG 5075

Qy       5450 TATTTTTAGTAGAGATGGGGTTTCACCATGTTGGCCAGGCTGGTCTCAAACTCCTGACCT 5509
             |||||  ||||  |||  |||||||  ||||||||||||||||||||||||||||||||
Db       5074 CATTTTGAGTACAGACGGGGTTTTGCCATGTTGGCCAGGCTGGTCTCAAACTCCTGACCA 5015

Qy       5510 CAG 5512
             |||
Db       5014 CAG 5012
```

RESULT 4
US-09-966-880A-15
; Sequence 15, Application US/09966880A
; GENERAL INFORMATION:
; APPLICANT: Honjo, Tasuku
; APPLICANT: Muramatsu, Masamichi
; TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
; FILE REFERENCE: 06501-088001
; CURRENT APPLICATION NUMBER: US/09/966,880A
; CURRENT FILING DATE: 2001-09-28
; PRIOR APPLICATION NUMBER: PCT/JP00/01918
; PRIOR FILING DATE: 2000-03-28
; PRIOR APPLICATION NUMBER: JP 11-371382
; PRIOR FILING DATE: 1999-12-27
; PRIOR APPLICATION NUMBER: JP 11-178999

```
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
;    LENGTH: 2172
;    TYPE: DNA
;    ORGANISM: Homo sapiens
US-09-966-880A-15

  Query Match             3.2%;  Score 174.2;  DB 1;  Length 2172;
  Best Local Similarity   74.8%;  Pred. No. 1.3;
  Matches  255;  Conservative    0;  Mismatches   78;  Indels    8;  Gaps    3;

Qy       3542 AAAGTGAAACAGACAGCCAGGTGTGGTGGCTCACGCCTGTAATCCCAGCACTCTGGGAGG 3601
             |||| | | |||  ||| || ||||||||||||||||||||||||||||||||||| |||||||
Db       1194 AAAGAAAGAGAGAGGGCCGGGCGTGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGG 1253

Qy       3602 CTGAGGTGGGTGGATCGCTTGAGCCCTGGAGTTCAAGACCAGCCTGAGCAACATGGCAAA 3661
             | |||  ||| ||||| | || |  | ||||||  |||||||||||  ||||||||||||
Db       1254 CCGAGCCGGGCGGATCACCTGTGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGCAAA 1313

Qy       3662 ACCCTGTTTCT------ATAACAAAAATTAGCCGGGCATGGTGGCATGTGCCTGTGGTCC 3715
             |||| || | |       |  ||||||||||| ||| |||| ||| |  |||||  |||
Db       1314 ACCCCGTCTGTACTCAAAATGCAAAAATTAGCCAGGCGTGGTAGCAGGCACCTGTAATCC 1373

Qy       3716 CAGCTACTAGGG-GGCTGAGGCAGGAGAATCTTTGGAGCCCAGGAGGTCAAGGCTGCACT 3774
             |||||||| ||| |||||||||||||||||  | || ||||||||||  ||| |||| |
Db       1374 CAGCTACTTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGAGGTGGAGGTTGCAGT 1433

Qy       3775 GAGCAGTGCTTGCGCCACTGCACTCCAGCCTGGGTGACAGGA-CCAGACCTTGCCTCAAA 3833
              ||| | | | | |||  |||||||||||||||| |||| || | ||||  || ||||  |
Db       1434 AAGCTGAGATCGTGCCGTTGCACTCCAGCCTGGGCGACAAGAGCAAGACTCTGTCTCAGA 1493

Qy       3834 AAAATAAGAAGAAAAATTAAAAATAAATGGAAACAACTACA 3874
              |||| || || ||||   | | | | |   | | ||| | |
Db       1494 AAAAAAAAAAAAAAAGAGAGAGAGAGAGAAAGAGAACAATA 1534


RESULT 5
US-09-966-880A-10
; Sequence 10, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
;    LENGTH: 6564
;    TYPE: DNA
;    ORGANISM: Homo sapiens
US-09-966-880A-10

  Query Match             3.2%;  Score 174.2;  DB 1;  Length 6564;
  Best Local Similarity   74.8%;  Pred. No. 2;
  Matches  255;  Conservative    0;  Mismatches   78;  Indels    8;  Gaps    3;

Qy       3542 AAAGTGAAACAGACAGCCAGGTGTGGTGGCTCACGCCTGTAATCCCAGCACTCTGGGAGG 3601
             |||| | | |||  ||| || ||||||||||||||||||||||||||||||||||| |||||||
Db       4934 AAAGAAAGAGAGAGGGCCGGGCGTGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGG 4993

Qy       3602 CTGAGGTGGGTGGATCGCTTGAGCCCTGGAGTTCAAGACCAGCCTGAGCAACATGGCAAA 3661
             | |||  ||| ||||| | || |  | ||||||  |||||||||||  ||||||||||||
Db       4994 CCGAGCCGGGCGGATCACCTGTGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGCAAA 5053

Qy       3662 ACCCTGTTTCT------ATAACAAAAATTAGCCGGGCATGGTGGCATGTGCCTGTGGTCC 3715
             |||| || | |       |  ||||||||||| ||| |||| ||| |  |||||  |||
Db       5054 ACCCCGTCTGTACTCAAAATGCAAAAATTAGCCAGGCGTGGTAGCAGGCACCTGTAATCC 5113

Qy       3716 CAGCTACTAGGG-GGCTGAGGCAGGAGAATCTTTGGAGCCCAGGAGGTCAAGGCTGCACT 3774
             |||||||| ||| |||||||||||||||||  | || ||||||||||  ||| |||| |
Db       5114 CAGCTACTTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGAGGTGGAGGTTGCAGT 5173

Qy       3775 GAGCAGTGCTTGCGCCACTGCACTCCAGCCTGGGTGACAGGA-CCAGACCTTGCCTCAAA 3833
              ||| | | | | |||  |||||||||||||||| |||| || | ||||  || ||||  |
Db       5174 AAGCTGAGATCGTGCCGTTGCACTCCAGCCTGGGCGACAAGAGCAAGACTCTGTCTCAGA 5233

Qy       3834 AAAATAAGAAGAAAAATTAAAAATAAATGGAAACAACTACA 3874
              |||| || || ||||   | | | | |   | | ||| | |
Db       5234 AAAAAAAAAAAAAAAGAGAGAGAGAGAGAAAGAGAACAATA 5274


RESULT 6
US-09-966-880A-9/c
; Sequence 9, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
;    LENGTH: 5514
;    TYPE: DNA
;    ORGANISM: Homo sapiens
;    FEATURE:
;    NAME/KEY: intron
;    LOCATION: (1)...(1031)
;    FEATURE:
;    NAME/KEY: exon
;    LOCATION: (1032)...(1118)
;    FEATURE:
;    NAME/KEY: intron
;    LOCATION: (1119)...(5514)
US-09-966-880A-9

  Query Match             2.0%;  Score 109.3;  DB 1;  Length 5514;
  Best Local Similarity   69.0%;  Pred. No. 4.4;
  Matches  176;  Conservative    0;  Mismatches   72;  Indels    7;  Gaps    2;

Qy       3621 TGAGCCCTGGAGTTCAAGACCAGCCTGAGCAACATGGCAAAACCCTGTTTCTATA----- 3675
             ||||  | ||||||  |||||||||||  |||||||  ||||||  | ||||
Db       5511 TGAGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCCCATCTCTACTAAAAA 5452

Qy       3676 -ACAAAAATTAGCCGGGCATGGTGGCATGTGCCTGTGGTCCCAGCTACTAGGG-GGCTGA 3733
              ||||| |||||||| | ||||||  | ||||||  |||||  ||||  ||| ||||||
Db       5451 TACAAACATTAGCCGAGTGTGGTGGTGGGCGCCTGTAATCCCATCTACCCGGGAGGCTGA 5392

Qy       3734 GGCAGGAGAATCTTTGGAGCCCAGGAGGTCAAGGCTGCACTGAGCAGTGCTTGCGCCACT 3793
              |||   ||  |   | || ||||||||||  |||  |||| |||||  ||  |  |||| |
Db       5391 GGCGACAGCTTTGCTTGAACCCAGGAGGTGGAGGTTGCAGTGAGCTATGRTCATGCCATT 5332
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Qy       3794 GCACTCCAGCCTGGGTGACAGGACCAGACCTTGCCTCAAAAAAATAAGAAGAAAAATTAA 3853
              ||||||||| |||| ||| ||||| | ||       ||||||| || || |||||  ||
Db       5331 CCACTCCAGCATGGGCAACAAGACCAAAACTCCATCTCAAAAAAAAAAAAAAAAAAAAAA 5272

Qy       3854 AAATAAATGGAAACA 3868
              ||| |||  | || |
Db       5271 AAAGAAAGAGTAATA 5257


RESULT 7
US-09-966-880A-11
; Sequence 11, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
;   LENGTH: 87
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-11

  Query Match             1.6%;  Score 87;  DB 1;  Length 87;
  Best Local Similarity   100.0%;  Pred. No. 4;
  Matches   87;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1032 AGAGAACCATCATTAATTGAAGTGAGATTTTTCTGGCCTGAGACTTGCAGGGAGGCAAGA 1091
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 AGAGAACCATCATTAATTGAAGTGAGATTTTTCTGGCCTGAGACTTGCAGGGAGGCAAGA 60

Qy       1092 AGACACTCTGGACACCACTATGGACAG 1118
              |||||||||||||||||||||||||||
Db         61 AGACACTCTGGACACCACTATGGACAG 87


RESULT 8
US-09-966-880A-12/c
; Sequence 12, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 148
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-12

  Query Match             0.3%;  Score 18.3;  DB 1;  Length 148;
  Best Local Similarity   64.6%;  Pred. No. 55;
  Matches   42;  Conservative    0;  Mismatches   22;  Indels    1;  Gaps    1;

Qy       2900 AACCAAGGTGCATGTAAAAAGATGTAGATTCCTCTGCCTTTCTCATCTACACAGCCCAGG 2959
              |||||| || ||   |||| |||||||     ||   | |  ||| |||| ||| ||||
Db        134 AACCAAAGTCCAGTGAAAAGGATGTAGCACTGTCACGCCTCTTCA-CTACGTAGCACAGG 76

Qy       2960 AGGGT 2964
              |||
Db         75 TAGGT 71


RESULT 9
US-09-966-880A-13/c
; Sequence 13, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 13
;   LENGTH: 271
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-13

  Query Match             0.3%;  Score 17.6;  DB 1;  Length 271;
  Best Local Similarity   52.8%;  Pred. No. 60;
  Matches   38;  Conservative    0;  Mismatches   34;  Indels    0;  Gaps    0;

Qy        937 GGGGTACCTGGTGGGGGTGATGCTGTCAGGGGAGGAGCCCAAAAGGGCAAGCTCAAATTT 996
              ||||  || || || |     | || |  || || |||    | || | || ||  | |
Db        102 GGGGCTCCAGGAGGTGAACCAGGTGACGCGGTAGCAGCGGCCAGGGTCTAGGTCCCAGTC 43

Qy        997 GAATGTGAAGGG 1008
              |  || || |
Db         42 CGAGATGTAGCG 31


RESULT 10
US-09-966-880A-14
; Sequence 14, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
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```
; SEQ ID NO 14
;   LENGTH: 116
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-14

  Query Match             0.3%;  Score 16.2;  DB 1;  Length 116;
  Best Local Similarity   52.2%;  Pred. No. 53;
  Matches   36;  Conservative    0;  Mismatches   33;  Indels    0;  Gaps    0;

Qy       4437 GAAGGACTGCAAAGAGGGAAGAAGCTCTGGTGGGGTGAGGGTGGTGATTCAGGTTCTGTA 4496
              |||   |  |||||      ||   ||||  ||   |  ||   |||||| |  | |
Db         30 GAAAACCACGAAAGAACTTTCAAAGCCTGGGAAGGGCTGCATGAAAATTCAGTTCGTCTC 89

Qy       4497 TCCTGACTG 4505
              ||| ||| |
Db         90 TCCAGACAG 98


RESULT 11
US-09-966-880A-13
; Sequence 13, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 13
;   LENGTH: 271
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-13

  Query Match             0.3%;  Score 16;  DB 1;  Length 271;
  Best Local Similarity   55.4%;  Pred. No. 62;
  Matches   31;  Conservative    0;  Mismatches   25;  Indels    0;  Gaps    0;

Qy       2023 CAGCCGAGGCTGGTCTCTAAGTCCTGGCCCAAGCGATCCTCCTGCCTGGGCCTCCT 2078
              || |   | ||||   |||   |||||||   || | |      |||||  | |||
Db         36 CATCTCGGACTGGGACCTAGACCCTGGCCGCTGCTACCGCGTCACCTGGTTCACCT 91


RESULT 12
US-09-966-880A-12
; Sequence 12, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 148
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-12

  Query Match             0.3%;  Score 15.4;  DB 1;  Length 148;
  Best Local Similarity   76.0%;  Pred. No. 59;
  Matches   19;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy       4349 AGACCAGCCTGGGCAACACAGTGAA 4373
              |||||  |||| || ||  ||||||
Db         69 AGACCTACCTGTGCTACGTAGTGAA 93


RESULT 13
US-09-966-880A-14/c
; Sequence 14, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
;   LENGTH: 116
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-14

  Query Match             0.3%;  Score 14.8;  DB 1;  Length 116;
  Best Local Similarity   59.5%;  Pred. No. 55;
  Matches   25;  Conservative    0;  Mismatches   17;  Indels    0;  Gaps    0;

Qy        662 AAGCTATTTAAATGCTCTTTAAGGTATTTACATAAATATTAC 703
              | ||| |  || | || |     | | | |||| || |||| |
Db         57 AGGCTTTGAAAGTTCTTTCGTGGTTTTCTACAAAAGTATTCC 16


RESULT 14
US-09-966-880A-11/c
; Sequence 11, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
;   LENGTH: 87
```

```
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-11

  Query Match             0.3%;  Score 14.4;  DB 1;  Length 87;
  Best Local Similarity   51.6%;  Pred. No. 49;
  Matches   33;  Conservative    0;  Mismatches   31;  Indels    0;  Gaps    0;

Qy        579 CTGTCTGTACTGAGGTTCAGAGAGACTGTGGGAATATGGGGGAATTAGAGGCTATCTGAG 638
              |||||  || ||  || ||||| | ||    | |    | | |   |||| |    |
Db         87 CTGTCCATAGTGGTGTCCAGAGTGTCTTCTTGCCTCCCTGCAAGTCTCAGGCCAGAAAAA 28

Qy        639 GCTC 642
              |||
Db         27 TCTC 24


Search completed: March 10, 2004, 13:40:45
Job time : 49.087 secs

                          GenCore version 5.1.6
                 Copyright (c) 1993 - 2004  Compugen Ltd.


OM nucleic - nucleic search, using sw model

Run on:         March 10, 2004, 13:38:36 ; Search time 56.0535 Seconds
                                           (without alignments)
                                           3.483 Million cell updates/sec

Title:          US-09-966-880A-10
Perfect score:  6564
Sequence:       1 gggggcctgtaatcccagct.....cttccacaaggcggtcaaag 6564

Scoring table:  IDENTITY_NUC
                Gapop 10.0 , Gapext 0.5

Searched:       7 seqs, 14872 residues

Total number of hits satisfying chosen parameters:      14

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
                 Maximum Match 100%
                 Listing first 45 summaries

Database :       US09966880A.seq:*

      Pred. No. is the number of results predicted by chance to have a
      score greater than or equal to the score of the result being printed,
      and is derived by analysis of the total score distribution.

                                SUMMARIES

                  %
Result            Query
   No.    Score  Match Length DB  ID                          Description
 ---------------------------------------------------------------------------
     1     6564  100.0   6564  1  US-09-966-880A-10           Sequence 10, Appl
     2     2172   33.1   2172  1  US-09-966-880A-15           Sequence 15, Appl
     3      271    4.1    271  1  US-09-966-880A-13           Sequence 13, Appl
  c  4   178.6    2.7   5514  1  US-09-966-880A-9            Sequence 9, Appli
     5   174.2    2.7   5514  1  US-09-966-880A-9            Sequence 9, Appli
     6      148    2.3    148  1  US-09-966-880A-12           Sequence 12, Appl
     7      116    1.8    116  1  US-09-966-880A-14           Sequence 14, Appl
  c  8    34.8    0.5   6564  1  US-09-966-880A-10           Sequence 10, Appl
  c  9    29.4    0.4   2172  1  US-09-966-880A-15           Sequence 15, Appl
  c 10    20.6    0.3    271  1  US-09-966-880A-13           Sequence 13, Appl
  c 11    17.4    0.3     87  1  US-09-966-880A-11           Sequence 11, Appl
  c 12      17    0.3    116  1  US-09-966-880A-14           Sequence 14, Appl
    13    15.8    0.2     87  1  US-09-966-880A-11           Sequence 11, Appl
  c 14    15.8    0.2    148  1  US-09-966-880A-12           Sequence 12, Appl
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ALIGNMENTS

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RESULT 1
US-09-966-880A-10
; Sequence 10, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
;   LENGTH: 6564
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-10

  Query Match             100.0%;  Score 6564;  DB 1;  Length 6564;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-44;
  Matches 6564;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GGGGGCCTGTAATCCCAGCTACTCAGGAGGCTGAGGCAGGAGGATCCGCGGAGCCTGGCA 60
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 GGGGGCCTGTAATCCCAGCTACTCAGGAGGCTGAGGCAGGAGGATCCGCGGAGCCTGGCA 60

Qy         61 GATCTGCCTGAGCCTGGGAGGTTGAGGCTACAGTAAGCCAAGATCATGCCAGTATACTTC 120
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GATCTGCCTGAGCCTGGGAGGTTGAGGCTACAGTAAGCCAAGATCATGCCAGTATACTTC 120

Qy        121 AGCCTGGGCGACAAAGTGAGACCGTAACAAAAAAAAAAAAAATTTAAAAAAAGAAATTTAG 180
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 AGCCTGGGCGACAAAGTGAGACCGTAACAAAAAAAAAAAAAATTTAAAAAAAGAAATTTAG 180

Qy        181 ATCAAGATCCAACTGTAAAAAGTGGCCTAAACACCACATTAAAGAGTTTGGAGTTTATTC 240
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 ATCAAGATCCAACTGTAAAAAGTGGCCTAAACACCACATTAAAGAGTTTGGAGTTTATTC 240

Qy        241 TGCAGGCAGAAGAGAACCATCAGGGGGTCTTCAGCATGGGAATGGCATGGTGCACCTGGT 300
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 TGCAGGCAGAAGAGAACCATCAGGGGGTCTTCAGCATGGGAATGGCATGGTGCACCTGGT 300

Qy        301 TTTTGTGAGATCATGGTGGTGACAGTGTGGGGAATGTTATTTTGGAGGGACTGGAGGCAG 360
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 TTTTGTGAGATCATGGTGGTGACAGTGTGGGGAATGTTATTTTGGAGGGACTGGAGGCAG 360

Qy        361 ACAGACCGGTTAAAAGGCCAGCACAACAGATAAGGAGGAAGAAGATGAGGGCTTGGACCG 420
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 ACAGACCGGTTAAAAGGCCAGCACAACAGATAAGGAGGAAGAAGATGAGGGCTTGGACCG 420

Qy        421 AAGCAGAGAAGAGCAAACAGGGAAGGTACAAATTCAAGAAATATTGGGGGGTTTGAATCA 480
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        421 AAGCAGAGAAGAGCAAACAGGGAAGGTACAAATTCAAGAAATATTGGGGGGTTTGAATCA 480

Qy        481 ACACATTTAGATGATTAATTAAATATGAGGACTGAGGAATAAGAAATGAGTCAAGGATGG 540
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        481 ACACATTTAGATGATTAATTAAATATGAGGACTGAGGAATAAGAAATGAGTCAAGGATGG 540

Qy        541 TTCCAGGCTGCTAGGCTGCTTACCTGAGGTGGCAAAGTCGGGAGGAGTGGCAGTTTAGGA 600
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Db        541 TTCCAGGCTGCTAGGCTGCTTACCTGAGGTGGCAAAGTCGGGAGGAGTGGCAGTTTAGGA 600
Qy        601 CAGGGGGCAGTTGAGGAATATTGTTTTGATCATTTTGAGTTTGAGGTACAAGTTGGACAC 660
Db        601 CAGGGGGCAGTTGAGGAATATTGTTTTGATCATTTTGAGTTTGAGGTACAAGTTGGACAC 660
Qy        661 TTAGGTAAAGACTGGAGGGGAAATCTGAATATACAATTATGGGACTGAGGAACAAGTTTA 720
Db        661 TTAGGTAAAGACTGGAGGGGAAATCTGAATATACAATTATGGGACTGAGGAACAAGTTTA 720
Qy        721 TTTTATTTTTTGTTTCGTTTTCTTGTTGAAGAACAAATTTAATTGTAATCCCAAGTCATC 780
Db        721 TTTTATTTTTTGTTTCGTTTTCTTGTTGAAGAACAAATTTAATTGTAATCCCAAGTCATC 780
Qy        781 AGCATCTAGAAGACAGTGGCAGGAGGTGACTGTCTTGTGGGTAAGGGTTTGGGGTCCTTG 840
Db        781 AGCATCTAGAAGACAGTGGCAGGAGGTGACTGTCTTGTGGGTAAGGGTTTGGGGTCCTTG 840
Qy        841 ATGAGTATCTCTCAATTGGCCTTAAATATAAGCAGGAAAAGGAGTTTATGATGGATTCCA 900
Db        841 ATGAGTATCTCTCAATTGGCCTTAAATATAAGCAGGAAAAGGAGTTTATGATGGATTCCA 900
Qy        901 GGCTCAGCAGGGCTCAGGAGGGCTCAGGCAGCCAGCAGAGGAAGTCAGAGCATCTTCTTT 960
Db        901 GGCTCAGCAGGGCTCAGGAGGGCTCAGGCAGCCAGCAGAGGAAGTCAGAGCATCTTCTTT 960
Qy        961 GGTTTAGCCCAAGTAATGACTTCCTTAAAAAGCTGAAGGAAAATCCAGAGTGACCAGATT 1020
Db        961 GGTTTAGCCCAAGTAATGACTTCCTTAAAAAGCTGAAGGAAAATCCAGAGTGACCAGATT 1020
Qy       1021 ATAAACTGTACTCTTGCATTTTCTCTCCCTCCTCTCACCCACAGCCTCTTGATGAACCGG 1080
Db       1021 ATAAACTGTACTCTTGCATTTTCTCTCCCTCCTCTCACCCACAGCCTCTTGATGAACCGG 1080
Qy       1081 AGGAAGTTTCTTTACCAATTCAAAAATGTCCGCTGGGCTAAGGGTCGGCGTGAGACCTAC 1140
Db       1081 AGGAAGTTTCTTTACCAATTCAAAAATGTCCGCTGGGCTAAGGGTCGGCGTGAGACCTAC 1140
Qy       1141 CTGTGCTACGTAGTGAAGAGGCGTGACAGTGCTACATCCTTTTCACTGGACTTTGGTTAT 1200
Db       1141 CTGTGCTACGTAGTGAAGAGGCGTGACAGTGCTACATCCTTTTCACTGGACTTTGGTTAT 1200
Qy       1201 CTTCGCAATAAGGTATCAATTAAAGTCAGCTTTGCAAGCAGTTTAATGGTCAACTGTGAG 1260
Db       1201 CTTCGCAATAAGGTATCAATTAAAGTCAGCTTTGCAAGCAGTTTAATGGTCAACTGTGAG 1260
Qy       1261 TGCTTTTAGAGCCACCTGCTGATGGTATTACTTCCATCCTTTTTTGGCATTTGTGTCTCT 1320
Db       1261 TGCTTTTAGAGCCACCTGCTGATGGTATTACTTCCATCCTTTTTTGGCATTTGTGTCTCT 1320
Qy       1321 ATCACATTCCTCAAATCCTTTTTTTTTATTTCTTTTTCCATGTCCATGCACCCATATTAGA 1380
Db       1321 ATCACATTCCTCAAATCCTTTTTTTTTATTTCTTTTTCCATGTCCATGCACCCATATTAGA 1380
Qy       1381 CATGGCCCAAAATATGTGATTTAATTCCTCCCCAGTAATGCTGGGCACCCTAATACCACT 1440
Db       1381 CATGGCCCAAAATATGTGATTTAATTCCTCCCCAGTAATGCTGGGCACCCTAATACCACT 1440
Qy       1441 CCTTCCTTCAGTGCCAAGAACAACTGCTCCCAAACTGTTTACCAGCTTTCCTCAGCATCT 1500
Db       1441 CCTTCCTTCAGTGCCAAGAACAACTGCTCCCAAACTGTTTACCAGCTTTCCTCAGCATCT 1500
Qy       1501 GAATTGCCTTTGAGATTAATTAAGCTAAAAGCATTTTTATATGGGAGAATATTATCAGCT 1560
Db       1501 GAATTGCCTTTGAGATTAATTAAGCTAAAAGCATTTTTATATGGGAGAATATTATCAGCT 1560
Qy       1561 TGTCCAAGCAAAAATTTTAAATGTGAAAAACAAATTGTGTCTTAAGCATTTTTGAAAATT 1620
Db       1561 TGTCCAAGCAAAAATTTTAAATGTGAAAAACAAATTGTGTCTTAAGCATTTTTGAAAATT 1620
Qy       1621 AAGGAAGAAGAATTTGGGAAAAAATTAACGGTGGTTCAATTCTGTTTTCCAAATGATTTC 1680
Db       1621 AAGGAAGAAGAATTTGGGAAAAAATTAACGGTGGTTCAATTCTGTTTTCCAAATGATTTC 1680
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```
Qy       1681 TTTTCCCTCCTACTCACATGGGTCGTAGGCCAGTGAATACATTCAACATGGTGATCCCCA 1740
Db       1681 TTTTCCCTCCTACTCACATGGGTCGTAGGCCAGTGAATACATTCAACATGGTGATCCCCA 1740
Qy       1741 GAAAACTCAGAGAAGCCTCGGCTGATGATTAATTAAATTGATCTTTCGGCTACCCGAGAG 1800
Db       1741 GAAAACTCAGAGAAGCCTCGGCTGATGATTAATTAAATTGATCTTTCGGCTACCCGAGAG 1800
Qy       1801 AATTACATTTCCAAGAGACTTCTTCACCAAAATCCAGATGGGTTTACATAAACTTCTGCC 1860
Db       1801 AATTACATTTCCAAGAGACTTCTTCACCAAAATCCAGATGGGTTTACATAAACTTCTGCC 1860
Qy       1861 CATGGGTATCTCCTCTCTCCTAACACGCTGTGACGTCTGGGCTTGGTGGAATCTCAGGGA 1920
Db       1861 CATGGGTATCTCCTCTCTCCTAACACGCTGTGACGTCTGGGCTTGGTGGAATCTCAGGGA 1920
Qy       1921 AGCATCCGTGGGGTGGAAGGTCATCGTCTGGCTCGTTGTTTGATGGTTATATTACCATGC 1980
Db       1921 AGCATCCGTGGGGTGGAAGGTCATCGTCTGGCTCGTTGTTTGATGGTTATATTACCATGC 1980
Qy       1981 AATTTTCTTTGCCTACATTTGTATTGAATACATCCCAATCTCCTTCCTATTCGGTGACAT 2040
Db       1981 AATTTTCTTTGCCTACATTTGTATTGAATACATCCCAATCTCCTTCCTATTCGGTGACAT 2040
Qy       2041 GACACATTCTATTTCAGAAGGCTTTGATTTTATCAAGCACTTTCATTTACTTCTCATGGC 2100
Db       2041 GACACATTCTATTTCAGAAGGCTTTGATTTTATCAAGCACTTTCATTTACTTCTCATGGC 2100
Qy       2101 AGTGCCTATTACTTCTCTTACAATACCCATCTGTCTGCTTTACCAAAATCTATTTCCCCT 2160
Db       2101 AGTGCCTATTACTTCTCTTACAATACCCATCTGTCTGCTTTACCAAAATCTATTTCCCCT 2160
Qy       2161 TTTCAGATCCTCCCAAATGGTCCTCATAAACTGTCCTGCCTCCACCTAGTGGTCCAGGTA 2220
Db       2161 TTTCAGATCCTCCCAAATGGTCCTCATAAACTGTCCTGCCTCCACCTAGTGGTCCAGGTA 2220
Qy       2221 TATTTCCACAATGTTACATCAACAGGCACTTCTAGCCATTTTCCTTCTCAAAAGGTGCAA 2280
Db       2221 TATTTCCACAATGTTACATCAACAGGCACTTCTAGCCATTTTCCTTCTCAAAAGGTGCAA 2280
Qy       2281 AAAGCAACTTCATAAACACAAATTAAATCTTCGGTGAGGTAGTGTGATGCTGCTTCCTCC 2340
Db       2281 AAAGCAACTTCATAAACACAAATTAAATCTTCGGTGAGGTAGTGTGATGCTGCTTCCTCC 2340
Qy       2341 CAACTCAGCGCACTTCGTCTTCCTCATTCCACAAAAACCCATAGCCTTCCTTCACTCTGC 2400
Db       2341 CAACTCAGCGCACTTCGTCTTCCTCATTCCACAAAAACCCATAGCCTTCCTTCACTCTGC 2400
Qy       2401 AGGACTAGTGCTGCCAAGGGTTCAGCTCTACCTACTGGTGTGCTCTTTTGAGCAAGTTGC 2460
Db       2401 AGGACTAGTGCTGCCAAGGGTTCAGCTCTACCTACTGGTGTGCTCTTTTGAGCAAGTTGC 2460
Qy       2461 TTAGCCTCTCTGTAACACAAGGACAATAGCTGCAAGCATCCCCAAAGATCATTGCAGGAG 2520
Db       2461 TTAGCCTCTCTGTAACACAAGGACAATAGCTGCAAGCATCCCCAAAGATCATTGCAGGAG 2520
Qy       2521 ACAATGACTAAGGCTACCAGAGCCGCAATAAAAGTCAGTGAATTTTAGCGTGGTCCTCTC 2580
Db       2521 ACAATGACTAAGGCTACCAGAGCCGCAATAAAAGTCAGTGAATTTTAGCGTGGTCCTCTC 2580
Qy       2581 TGTCTCTCCAGAACGGCTGCCACGTGGAATTGCTCTTCCTCCGCTACATCTCGGACTGGG 2640
Db       2581 TGTCTCTCCAGAACGGCTGCCACGTGGAATTGCTCTTCCTCCGCTACATCTCGGACTGGG 2640
Qy       2641 ACCTAGACCCTGGCCGCTGCTACCGCGTCACCTGGTTCACCTCCTGGAGCCCCTGCTACG 2700
Db       2641 ACCTAGACCCTGGCCGCTGCTACCGCGTCACCTGGTTCACCTCCTGGAGCCCCTGCTACG 2700
Qy       2701 ACTGTGCCCGACATGTGGCCGACTTTCTGCGAGGGAACCCCAACCTCAGTCTGAGGATCT 2760
Db       2701 ACTGTGCCCGACATGTGGCCGACTTTCTGCGAGGGAACCCCAACCTCAGTCTGAGGATCT 2760
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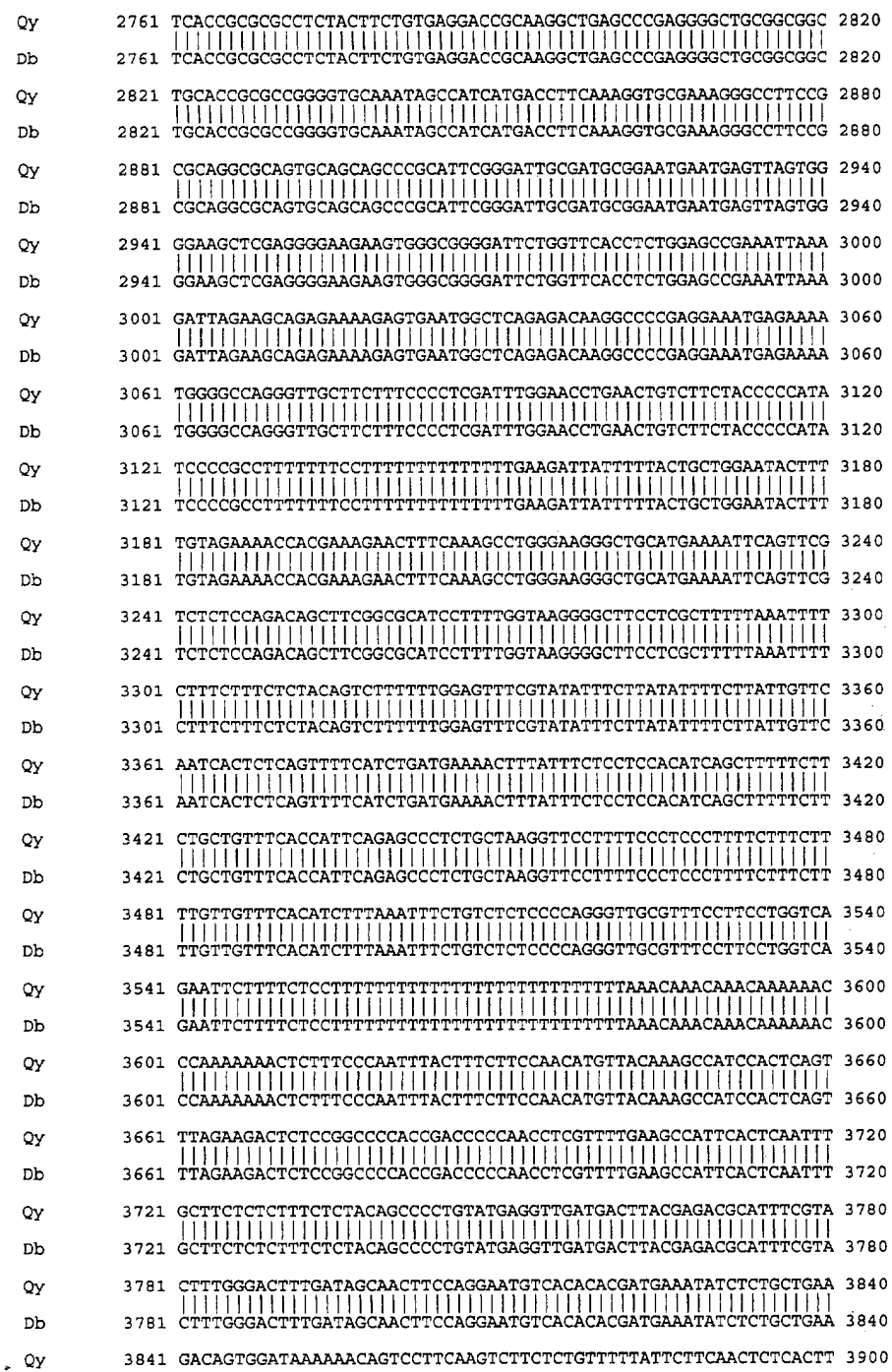
Qy 2761 TCACCGCGCGCCTCTACTTCTGTGAGGACCGCAAGGCTGAGCCCGAGGGGCTGCGGCGGC 2820
Db 2761 TCACCGCGCGCCTCTACTTCTGTGAGGACCGCAAGGCTGAGCCCGAGGGGCTGCGGCGGC 2820
Qy 2821 TGCACCGCGCCGGGGGTGCAAATAGCCATCATGACCTTCAAAGGTGCGAAAGGGCCTTCCG 2880
Db 2821 TGCACCGCGCCGGGGGTGCAAATAGCCATCATGACCTTCAAAGGTGCGAAAGGGCCTTCCG 2880
Qy 2881 CGCAGGCGCAGTGCAGCAGCCCGCATTCGGGATTGCGATGCGGAATGAATGAGTTAGTGG 2940
Db 2881 CGCAGGCGCAGTGCAGCAGCCCGCATTCGGGATTGCGATGCGGAATGAATGAGTTAGTGG 2940
Qy 2941 GGAAGCTCGAGGGGAAGAAGTGGGCGGGGATTCTGGTTCACCTCTGGAGCCGAAATTAAA 3000
Db 2941 GGAAGCTCGAGGGGAAGAAGTGGGCGGGGATTCTGGTTCACCTCTGGAGCCGAAATTAAA 3000
Qy 3001 GATTAGAAGCAGAGAAAAGAGTGAATGGCTCAGAGACAAGGCCCCGAGGAAATGAGAAAA 3060
Db 3001 GATTAGAAGCAGAGAAAAGAGTGAATGGCTCAGAGACAAGGCCCCGAGGAAATGAGAAAA 3060
Qy 3061 TGGGGCCAGGGTTGCTTCTTTCCCCTCGATTTGGAACCTGAACTGTCTTCTACCCCCATA 3120
Db 3061 TGGGGCCAGGGTTGCTTCTTTCCCCTCGATTTGGAACCTGAACTGTCTTCTACCCCCATA 3120
Qy 3121 TCCCCGCCTTTTTTTCCTTTTTTTTTTTTTTGAAGATTATTTTTACTGCTGGAATACTTT 3180
Db 3121 TCCCCGCCTTTTTTTCCTTTTTTTTTTTTTTGAAGATTATTTTTACTGCTGGAATACTTT 3180
Qy 3181 TGTAGAAAACCACGAAAGAACTTTCAAAGCCTGGGAAGGGCTGCATGAAAATTCAGTTCG 3240
Db 3181 TGTAGAAAACCACGAAAGAACTTTCAAAGCCTGGGAAGGGCTGCATGAAAATTCAGTTCG 3240
Qy 3241 TCTCTCCAGACAGCTTCGGCGCATCCTTTTGGTAAGGGGCTTCCTCGCTTTTTAAATTTT 3300
Db 3241 TCTCTCCAGACAGCTTCGGCGCATCCTTTTGGTAAGGGGCTTCCTCGCTTTTTAAATTTT 3300
Qy 3301 CTTTCTTTCTCTACAGTCTTTTTTGGAGTTTCGTATATTTCTTATATTTTCTTATTGTTC 3360
Db 3301 CTTTCTTTCTCTACAGTCTTTTTTGGAGTTTCGTATATTTCTTATATTTTCTTATTGTTC 3360
Qy 3361 AATCACTCTCAGTTTTCATCTGATGAAAACTTTATTTCTCCTCCACATCAGCTTTTTCTT 3420
Db 3361 AATCACTCTCAGTTTTCATCTGATGAAAACTTTATTTCTCCTCCACATCAGCTTTTTCTT 3420
Qy 3421 CTGCTGTTTCACCATTCAGAGCCCTCTGCTAAGGTTCCTTTTCCCTCCCTTTTCTTTCTT 3480
Db 3421 CTGCTGTTTCACCATTCAGAGCCCTCTGCTAAGGTTCCTTTTCCCTCCCTTTTCTTTCTT 3480
Qy 3481 TTGTTGTTTCACATCTTTAAATTTCTGTCTCTCCCCAGGGTTGCGTTTCCTTCCTGGTCA 3540
Db 3481 TTGTTGTTTCACATCTTTAAATTTCTGTCTCTCCCCAGGGTTGCGTTTCCTTCCTGGTCA 3540
Qy 3541 GAATTCTTTTCTCCTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAACAAACAAACAAAAAAC 3600
Db 3541 GAATTCTTTTCTCCTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAACAAACAAACAAAAAAC 3600
Qy 3601 CCAAAAAAACTCTTTCCCAATTTACTTTCTTCCAACATGTTACAAAGCCATCCACTCAGT 3660
Db 3601 CCAAAAAAACTCTTTCCCAATTTACTTTCTTCCAACATGTTACAAAGCCATCCACTCAGT 3660
Qy 3661 TTAGAAGACTCTCCGGCCCCACCGACCCCCAACCTCGTTTTGAAGCCATTCACTCAATTT 3720
Db 3661 TTAGAAGACTCTCCGGCCCCACCGACCCCCAACCTCGTTTTGAAGCCATTCACTCAATTT 3720
Qy 3721 GCTTCTCTCTTTCTCTACAGCCCCTGTATGAGGTTGATGACTTACGAGACGCATTTCGTA 3780
Db 3721 GCTTCTCTCTTTCTCTACAGCCCCTGTATGAGGTTGATGACTTACGAGACGCATTTCGTA 3780
Qy 3781 CTTTGGGACTTTGATAGCAACTTCCAGGAATGTCACACACGATGAAATATCTCTGCTGAA 3840
Db 3781 CTTTGGGACTTTGATAGCAACTTCCAGGAATGTCACACACGATGAAATATCTCTGCTGAA 3840
Qy 3841 GACAGTGGATAAAAAACAGTCCTTCAAGTCTTCTCTGTTTTTATTCTTCAACTCTCACTT 3900
Db 3841 GACAGTGGATAAAAAACAGTCCTTCAAGTCTTCTCTGTTTTTATTCTTCAACTCTCACTT 3900
Qy 3901 TCTTAGAGTTTACAGAAAAAATATTTATATACGACTCTTTAAAAAGATCTATGTCTTGAA 3960
Db 3901 TCTTAGAGTTTACAGAAAAAATATTTATATACGACTCTTTAAAAAGATCTATGTCTTGAA 3960
Qy 3961 AATAGAGAAGGAACACAGGTCTGGCCAGGGACGTGCTGCAATTGGTGCAGTTTTGAATGC 4020
Db 3961 AATAGAGAAGGAACACAGGTCTGGCCAGGGACGTGCTGCAATTGGTGCAGTTTTGAATGC 4020
Qy 4021 AACATTGTCCCCTACTGGGAATAACAGAACTGCAGGACCTGGGAGCATCCTAAAGTGTCA 4080
Db 4021 AACATTGTCCCCTACTGGGAATAACAGAACTGCAGGACCTGGGAGCATCCTAAAGTGTCA 4080
Qy 4081 ACGTTTTTCTATGACTTTTAGGTAGGATGAGAGCAGAAGGTAGATCCTAAAAAGCATGGT 4140
Db 4081 ACGTTTTTCTATGACTTTTAGGTAGGATGAGAGCAGAAGGTAGATCCTAAAAAGCATGGT 4140
Qy 4141 GAGAGGATCAAATGTTTTTATATCAACATCCTTTATTATTTGATTCATTTGAGTTAACAG 4200
Db 4141 GAGAGGATCAAATGTTTTTATATCAACATCCTTTATTATTTGATTCATTTGAGTTAACAG 4200
Qy 4201 TGGTGTTAGTGATAGATTTTTCTATTCTTTTCCCTTGACGTTTACTTTCAAGTAACACAA 4260
Db 4201 TGGTGTTAGTGATAGATTTTTCTATTCTTTTCCCTTGACGTTTACTTTCAAGTAACACAA 4260
Qy 4261 ACTCTTCCATCAGGCCATGATCTATAGGACCTCCTAATGAGAGTATCTGGGTGATTGTGA 4320
Db 4261 ACTCTTCCATCAGGCCATGATCTATAGGACCTCCTAATGAGAGTATCTGGGTGATTGTGA 4320
Qy 4321 CCCCAAACCATCTCTCCAAAGCATTAATATCCAATCATGCGCTGTATGTTTTAATCAGCA 4380
Db 4321 CCCCAAACCATCTCTCCAAAGCATTAATATCCAATCATGCGCTGTATGTTTTAATCAGCA 4380
Qy 4381 GAAGCATGTTTTTATGTTTGTACAAAAGAAGATTGTTATGGGTGGGGATGGAGGTATAGA 4440
Db 4381 GAAGCATGTTTTTATGTTTGTACAAAAGAAGATTGTTATGGGTGGGGATGGAGGTATAGA 4440
Qy 4441 CCATGCATGGTCACCTTCAAGCTACTTTAATAAAGGATCTTAAAATGGGCAGGAGGACTG 4500
Db 4441 CCATGCATGGTCACCTTCAAGCTACTTTAATAAAGGATCTTAAAATGGGCAGGAGGACTG 4500
Qy 4501 TGAACAAGACACCCTAATAATGGGTTGATGTCTGAAGTAGCAAATCTTCTGGAAACGCAA 4560
Db 4501 TGAACAAGACACCCTAATAATGGGTTGATGTCTGAAGTAGCAAATCTTCTGGAAACGCAA 4560
Qy 4561 ACTCTTTTAAGGAAGTCCCTAATTTAGAAACACCCACAAACTTCACATATCATAATTAGC 4620
Db 4561 ACTCTTTTAAGGAAGTCCCTAATTTAGAAACACCCACAAACTTCACATATCATAATTAGC 4620
Qy 4621 AAACAATTGGAAGGAAGTTGCTTGAATGTTGGGGAGAGGAAAATCTATTGGCTCTCGTGG 4680
Db 4621 AAACAATTGGAAGGAAGTTGCTTGAATGTTGGGGAGAGGAAAATCTATTGGCTCTCGTGG 4680
Qy 4681 GTCTCTTCATCTCAGAAATGCCAATCAGGTCAAGGTTTGCTACATTTTGTATGTGTGTGA 4740
Db 4681 GTCTCTTCATCTCAGAAATGCCAATCAGGTCAAGGTTTGCTACATTTTGTATGTGTGTGA 4740
Qy 4741 TGCTTCTCCCAAAGGTATATTAACTATATAAGAGAGTTGTGACAAAACAGAATGATAAAG 4800
Db 4741 TGCTTCTCCCAAAGGTATATTAACTATATAAGAGAGTTGTGACAAAACAGAATGATAAAG 4800
Qy 4801 CTGCGAACCGTGGCACACGCTCATAGTTCTAGCTGCTTGGGAGGTTGAGGAGGGAGGATG 4860
Db 4801 CTGCGAACCGTGGCACACGCTCATAGTTCTAGCTGCTTGGGAGGTTGAGGAGGGAGGATG 4860
Qy 4861 GCTTGAACACAGGTGTTCAAGGCCAGCCTGGGCAACATAACAAGATCCTGTCTCTCAAAA 4920
Db 4861 GCTTGAACACAGGTGTTCAAGGCCAGCCTGGGCAACATAACAAGATCCTGTCTCTCAAAA 4920
Qy 4921 AAAAAAAAAAAAAAAAGAAAGAGAGAGGGCCGGGCGTGGTGGCTCACGCCTGTAATCCCA 4980

```
Db       4921 AAAAAAAAAAAAAAAAAGAAAGAGAGAGGGCCGGGCGTGGTGGCTCACGCCTGTAATCCCA 4980

Qy       4981 GCACTTTGGGAGGCCGAGCCGGGCGGATCACCTGTGGTCAGGAGTTTGAGACCAGCCTGG 5040
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       4981 GCACTTTGGGAGGCCGAGCCGGGCGGATCACCTGTGGTCAGGAGTTTGAGACCAGCCTGG 5040

Qy       5041 CCAACATGGCAAAACCCCGTCTGTACTCAAAATGCAAAAATTAGCCAGGCGTGGTAGCAG 5100
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5041 CCAACATGGCAAAACCCCGTCTGTACTCAAAATGCAAAAATTAGCCAGGCGTGGTAGCAG 5100

Qy       5101 GCACCTGTAATCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGAGG 5160
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5101 GCACCTGTAATCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGAGG 5160

Qy       5161 TGGAGGTTGCAGTAAGCTGAGATCGTGCCGTTGCACTCCAGCCTGGGCGACAAGAGCAAG 5220
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5161 TGGAGGTTGCAGTAAGCTGAGATCGTGCCGTTGCACTCCAGCCTGGGCGACAAGAGCAAG 5220

Qy       5221 ACTCTGTCTCAGAAAAAAAAAAAAAAAAGAGAGAGAGAGAGAAAGAGAACAATATTTGGG 5280
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5221 ACTCTGTCTCAGAAAAAAAAAAAAAAAAGAGAGAGAGAGAGAAAGAGAACAATATTTGGG 5280

Qy       5281 AGAGAAGGATGGGGAAGCATTGCAAGGAAATTGTGCTTTATCCAACAAAATGTAAGGAGC 5340
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5281 AGAGAAGGATGGGGAAGCATTGCAAGGAAATTGTGCTTTATCCAACAAAATGTAAGGAGC 5340

Qy       5341 CAATAAGGGATCCCTATTTGTCTCTTTTGGTGTCTATTTGTCCCTAACAACTGTCTTTGA 5400
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5341 CAATAAGGGATCCCTATTTGTCTCTTTTGGTGTCTATTTGTCCCTAACAACTGTCTTTGA 5400

Qy       5401 CAGTGAGAAAAATATTCAGAATAACCATATCCCTGTGCCGTTATTACCTAGCAACCCTTG 5460
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5401 CAGTGAGAAAAATATTCAGAATAACCATATCCCTGTGCCGTTATTACCTAGCAACCCTTG 5460

Qy       5461 CAATGAAGATGAGCAGATCCACAGGAAAACTTGAATGCACAACTGTCTTATTTTAATCTT 5520
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5461 CAATGAAGATGAGCAGATCCACAGGAAAACTTGAATGCACAACTGTCTTATTTTAATCTT 5520

Qy       5521 ATTGTACATAAGTTTGTAAAAGAGTTAAAAATTGTTACTTCATGTATTCATTTATATTTT 5580
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5521 ATTGTACATAAGTTTGTAAAAGAGTTAAAAATTGTTACTTCATGTATTCATTTATATTTT 5580

Qy       5581 ATATTATTTTGCGTCTAATGATTTTTTATTAACATGATTTCCTTTTCTGATATATTGAAA 5640
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5581 ATATTATTTTGCGTCTAATGATTTTTTATTAACATGATTTCCTTTTCTGATATATTGAAA 5640

Qy       5641 TGGAGTCTCAAAGCTTCATAAATTTATAACTTTAGAAATGATTCTAATAACAACGTATGT 5700
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5641 TGGAGTCTCAAAGCTTCATAAATTTATAACTTTAGAAATGATTCTAATAACAACGTATGT 5700

Qy       5701 AATTGTAACATTGCAGTAATGGTGCTACGAAGCCATTTCTCTTGATTTTTAGTAAACTTT 5760
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5701 AATTGTAACATTGCAGTAATGGTGCTACGAAGCCATTTCTCTTGATTTTTAGTAAACTTT 5760

Qy       5761 TATGACAGCAAATTTGCTTCTGGCTCACTTTCAATCAGTTAAATAAATGATAAATAATTT 5820
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5761 TATGACAGCAAATTTGCTTCTGGCTCACTTTCAATCAGTTAAATAAATGATAAATAATTT 5820

Qy       5821 TGGAAGCTGTGAAGATAAAATACCAAATAAAATAATATAAAAGTGATTTATATGAAGTTA 5880
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5821 TGGAAGCTGTGAAGATAAAATACCAAATAAAATAATATAAAAGTGATTTATATGAAGTTA 5880

Qy       5881 AAATAAAAAAATCAGTATGATGGAATAAACTTGAGAGTCCAGAAGTTATCCCATACATCTG 5940
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5881 AAATAAAAAAATCAGTATGATGGAATAAACTTGAGAGTCCAGAAGTTATCCCATACATCTG 5940

Qy       5941 TAATCAACTAATTTCTCACAAGGGTGTAAGGACCATTCAATGGAGAAAAAATGATCTTCT 6000
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5941 TAATCAACTAATTTCTCACAAGGGTGTAAGGACCATTCAATGGAGAAAAAATGATCTTCT 6000

Qy       6001 CAACAAATGGTGCTGAGCTAATTGGATATTACATGCAAAGGAATGAATTTGAGTCTCTAC 6060
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       6001 CAACAAATGGTGCTGAGCTAATTGGATATTACATGCAAAGGAATGAATTTGAGTCTCTAC 6060

Qy       6061 TACACACCATATATAAAAATTAATTAAAAATTCATCAAATACCTAAATATTAGAGACTAA 6120
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       6061 TACACACCATATATAAAAATTAATTAAAAATTCATCAAATACCTAAATATTAGAGACTAA 6120

Qy       6121 TTTATAAACCGTAGAGAGAAACATAGGTAAAAATGTTTATGGCTTTAGATTAGGCAACAG 6180
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       6121 TTTATAAACCGTAGAGAGAAACATAGGTAAAAATGTTTATGGCTTTAGATTAGGCAACAG 6180

Qy       6181 CTTCTTAATTATGACATCAAAAGCACAAGCAACCAAAGACAAAAATAAATCAGTTGGACT 6240
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       6181 CTTCTTAATTATGACATCAAAAGCACAAGCAACCAAAGACAAAAATAAATCAGTTGGACT 6240

Qy       6241 TCATCGAAATTAAAAATCTTTGTGCATCAAAGGACACTTAGTAAGAAAGTGAAAAGACAA 6300
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       6241 TCATCGAAATTAAAAATCTTTGTGCATCAAAGGACACTTAGTAAGAAAGTGAAAAGACAA 6300

Qy       6301 CCCACAGAAGTGGGAGAAAACACTTGCAAATCATATATCTGATAAGGGTTGTGATATTAT 6360
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       6301 CCCACAGAAGTGGGAGAAAACACTTGCAAATCATATATCTGATAAGGGTTGTGATATTAT 6360

Qy       6361 GATATATATATAGGTTTTTGTCCATAGTTCCTGGCTTATAAACCCCCTCACCCTTGTTAC 6420
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       6361 GATATATATATAGGTTTTTGTCCATAGTTCCTGGCTTATAAACCCCCTCACCCTTGTTAC 6420

Qy       6421 AGTCATTTGTTATAAGGTTGGATGGTTTAGGCCTCAGAAGCAAAACTCTCTCTCTCACCT 6480
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       6421 AGTCATTTGTTATAAGGTTGGATGGTTTAGGCCTCAGAAGCAAAACTCTCTCTCTCACCT 6480

Qy       6481 TCTCCAGCCCTCCTGTCTCTGGCACCTCATTCTTCCCTGAGGCCACATAGAAACTAGAAT 6540
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       6481 TCTCCAGCCCTCCTGTCTCTGGCACCTCATTCTTCCCTGAGGCCACATAGAAACTAGAAT 6540

Qy       6541 CTCTCTTCCACAAGGCGGTCAAAG 6564
             |||||||||||||||||||||||||
Db       6541 CTCTCTTCCACAAGGCGGTCAAAG 6564
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RESULT 2
US-09-966-880A-15
; Sequence 15, Application US/09966880A
; GENERAL INFORMATION:
; APPLICANT: Honjo, Tasuku
; APPLICANT: Muramatsu, Masamichi
; TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
; FILE REFERENCE: 06501-088001
; CURRENT APPLICATION NUMBER: US/09/966,880A
; CURRENT FILING DATE: 2001-09-28
; PRIOR APPLICATION NUMBER: PCT/JP00/01918
; PRIOR FILING DATE: 2000-03-28
; PRIOR APPLICATION NUMBER: JP 11-371382
; PRIOR FILING DATE: 1999-12-27
; PRIOR APPLICATION NUMBER: JP 11-178999
; PRIOR FILING DATE: 1999-06-24
; PRIOR APPLICATION NUMBER: JP 11-87192
; PRIOR FILING DATE: 1999-03-29
; NUMBER OF SEQ ID NOS: 36
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 2172
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-966-880A-15

Query Match 33.1%; Score 2172; DB 1; Length 2172;
Best Local Similarity 100.0%; Pred. No. 2.1e-14;
Matches 2172; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy       3741 CCCCTGTATGAGGTTGATGACTTACGAGACGCATTTCGTACTTTGGGACTTTGATAGCAA 3800
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 CCCCTGTATGAGGTTGATGACTTACGAGACGCATTTCGTACTTTGGGACTTTGATAGCAA 60

Qy       3801 CTTCCAGGAATGTCACACACGATGAAATATCTCTGCTGAAGACAGTGGATAAAAAACAGT 3860
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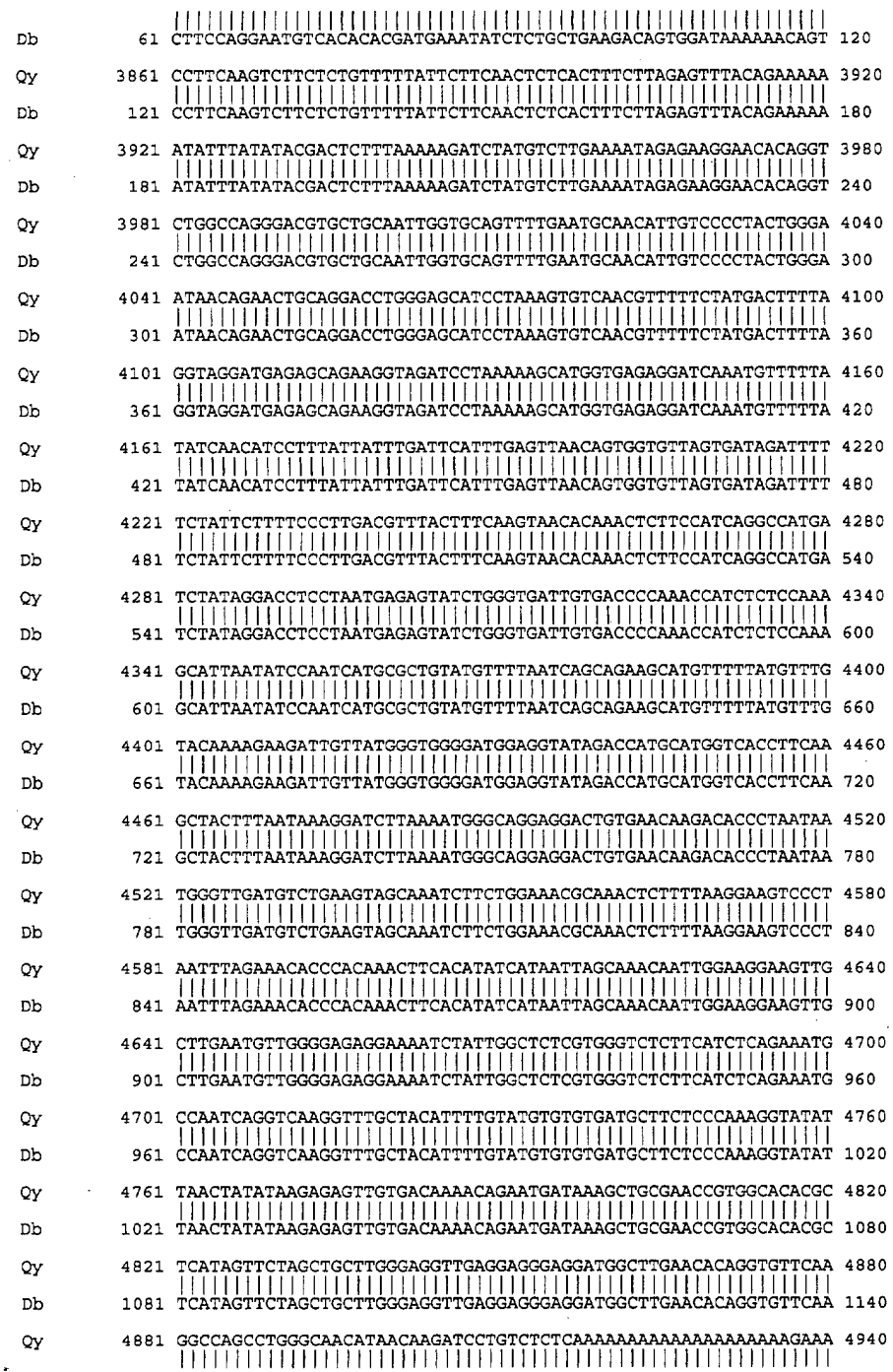

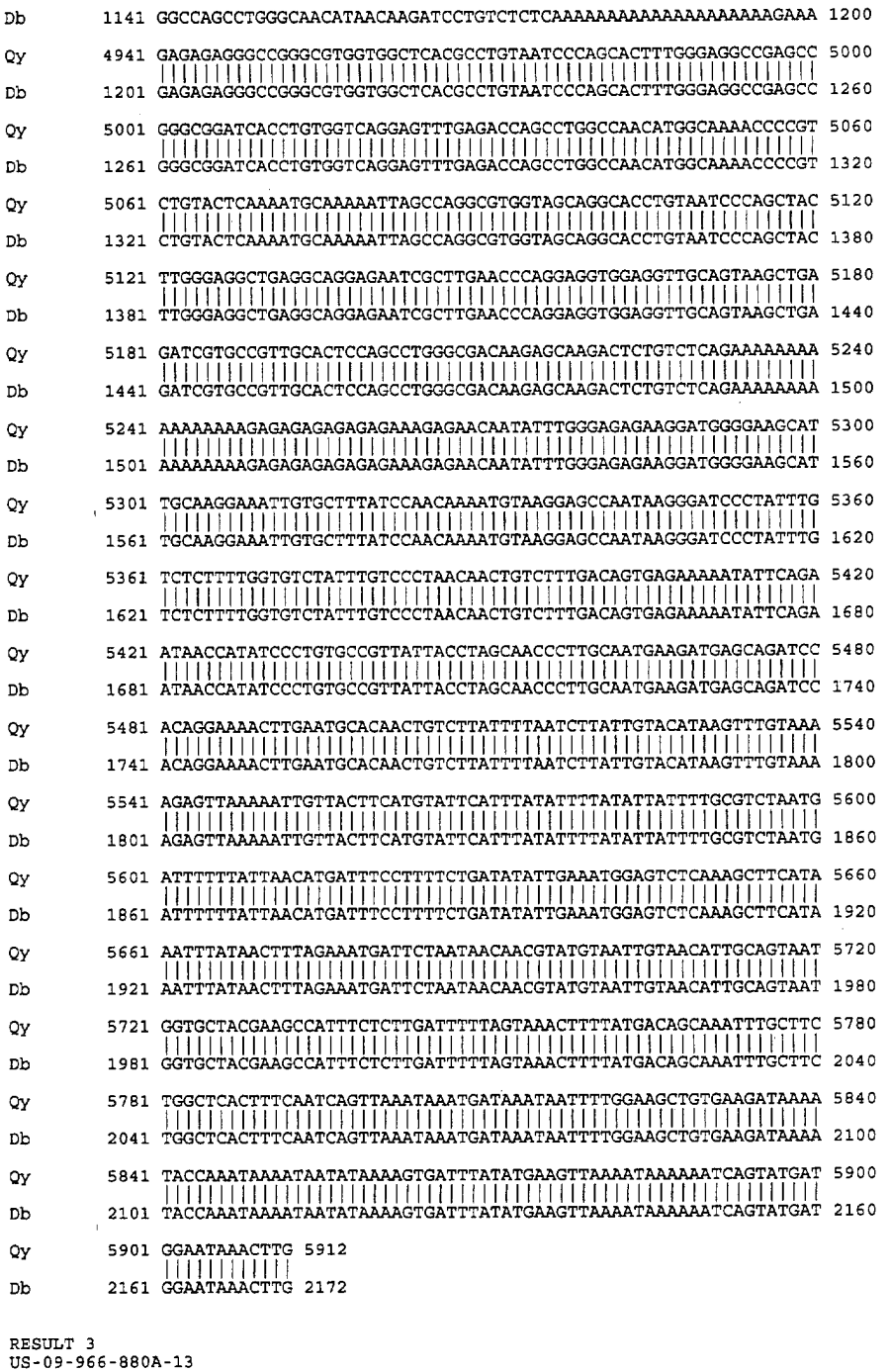

RESULT 3
US-09-966-880A-13

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; Sequence 13, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 13
;    LENGTH: 271
;    TYPE: DNA
;    ORGANISM: Homo sapiens
US-09-966-880A-13

  Query Match             4.1%;  Score 271;  DB 1;  Length 271;
  Best Local Similarity   100.0%;  Pred. No. 1.3;
  Matches  271;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2592 AACGGCTGCCACGTGGAATTGCTCTTCCTCCGCTACATCTCGGACTGGGACCTAGACCCT 2651
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 AACGGCTGCCACGTGGAATTGCTCTTCCTCCGCTACATCTCGGACTGGGACCTAGACCCT 60

Qy       2652 GGCCGCTGCTACCGCGTCACCTGGTTCACCTCCTGGAGCCCCTGCTACGACTGTGCCCGA 2711
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GGCCGCTGCTACCGCGTCACCTGGTTCACCTCCTGGAGCCCCTGCTACGACTGTGCCCGA 120

Qy       2712 CATGTGGCCGACTTTCTGCGAGGGAACCCCAACCTCAGTCTGAGGATCTTCACCGCGCGC 2771
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CATGTGGCCGACTTTCTGCGAGGGAACCCCAACCTCAGTCTGAGGATCTTCACCGCGCGC 180

Qy       2772 CTCTACTTCTGTGAGGACCGCAAGGCTGAGCCCGAGGGGCTGCGGCGGCTGCACCGCGCC 2831
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 CTCTACTTCTGTGAGGACCGCAAGGCTGAGCCCGAGGGGCTGCGGCGGCTGCACCGCGCC 240

Qy       2832 GGGGTGCAAATAGCCATCATGACCTTCAAAG 2862
             |||||||||||||||||||||||||||||||
Db        241 GGGGTGCAAATAGCCATCATGACCTTCAAAG 271


RESULT 4
US-09-966-880A-9/c
; Sequence 9, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
;    LENGTH: 5514
;    TYPE: DNA
;    ORGANISM: Homo sapiens
;    FEATURE:
;    NAME/KEY: intron
;    LOCATION: (1)...(1031)
;    FEATURE:
;    NAME/KEY: exon
;    LOCATION: (1032)...(1118)
;    FEATURE:
;    NAME/KEY: intron
;    LOCATION: (1119)...(5514)
US-09-966-880A-9

  Query Match             2.7%;  Score 178.6;  DB 1;  Length 5514;
  Best Local Similarity   83.1%;  Pred. No. 0.25;
  Matches  202;  Conservative    1;  Mismatches   40;  Indels    0;  Gaps    0;

Qy       5012 CTGTGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGCAAAACCCCGTCTGTACTCAAA 5071
             ||| |||||||||||||||||||||||||||||||||||||  ||||||| ||| |||| |||
Db       5512 CTGAGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAA 5453

Qy       5072 ATGCAAAAATTAGCCAGGCGTGGTAGCAGGCACCTGTAATCCCAGCTACTTGGGAGGCTG 5131
             || |||| ||||||| | ||||| |  ||| |||||||||||| |||| |||||||||
Db       5452 ATACAAACATTAGCCGAGTGTGGTGGTGGGCGCCTGTAATCCCATCTACCCGGGAGGCTG 5393

Qy       5132 AGGCAGGAGAATCGCTTGAACCCAGGAGGTGGAGGTTGCAGTAAGCTGAGATCGTGCCGT 5191
             ||||   ||  | |||||||||||||||||||||||||||| ||||  |:|| |||| |
Db       5392 AGGCGACAGCTTTGCTTGAACCCAGGAGGTGGAGGTTGCAGTGAGCTATGRTCATGCCAT 5333

Qy       5192 TGCACTCCAGCCTGGGCGACAAGAGCAAGACTCTGTCTCAGAAAAAAAAAAAAAAAAAGAG 5251
             | ||||||||| ||||| |||||| ||| ||||  ||||| ||||||||||||||||| |
Db       5332 TCCACTCCAGCATGGGCAACAAGACCAAAACTCCATCTCAAAAAAAAAAAAAAAAAAAAA 5273

Qy       5252 AGA 5254
             |||
Db       5272 AAA 5270


RESULT 5
US-09-966-880A-9
; Sequence 9, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
;    LENGTH: 5514
;    TYPE: DNA
;    ORGANISM: Homo sapiens
;    FEATURE:
;    NAME/KEY: intron
;    LOCATION: (1)...(1031)
;    FEATURE:
;    NAME/KEY: exon
;    LOCATION: (1032)...(1118)
;    FEATURE:
;    NAME/KEY: intron
;    LOCATION: (1119)...(5514)
US-09-966-880A-9

  Query Match             2.7%;  Score 174.2;  DB 1;  Length 5514;
  Best Local Similarity   74.8%;  Pred. No. 0.27;
```

```
  Matches  255;  Conservative    0;  Mismatches   78;  Indels    8;  Gaps    3;

Qy       4934 AAAGAAAGAGAGAGGGCCGGGCGTGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGG 4993
             |||| | | |||  ||| || ||||||||||||||||||||||||||||||||| |||||||
Db       3542 AAAGTGAAACAGACAGCCAGGTGTGGTGGCTCACGCCTGTAATCCCAGCACTCTGGGAGG 3601

Qy       4994 CCGAGCCGGGCGGATCACCTGTGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGCAAA 5053
             | |||  ||| ||||| | || |  | ||||||  ||||||||||  ||||||||||
Db       3602 CTGAGGTGGGTGGATCGCTTGAGCCCTGGAGTTCAAGACCAGCCTGAGCAACATGGCAAA 3661

Qy       5054 ACCCCGTCTGTACTCAAAATGCAAAAATTAGCCAGGCGTGGTAGCAGGCACCTGTAATCC 5113
             |||| || | |       |  ||||||||||| ||| |||| ||| |  |||||  |||
Db       3662 ACCCTGTTTCT------ATAACAAAAATTAGCCGGGCATGGTGGCATGTGCCTGTGGTCC 3715

Qy       5114 CAGCTACTTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGAGGTGGAGGTTGCAGT 5173
             |||||||| ||| |||||||||||||||||  | || ||||||||||  ||| |||| |
Db       3716 CAGCTACTAGGG-GGCTGAGGCAGGAGAATCTTTGGAGCCCAGGAGGTCAAGGCTGCACT 3774

Qy       5174 AAGCTGAGATCGTGCCGTTGCACTCCAGCCTGGGCGACAAGAGCAAGACTCTGTCTCAGA 5233
              ||| | | | | |||  ||||||||||||||| |||| || | ||||  || |||| |
Db       3775 GAGCAGTGCTTGCGCCACTGCACTCCAGCCTGGGTGACAGGA-CCAGACCTTGCCTCAAA 3833

Qy       5234 AAAAAAAAAAAAAAAAGAGAGAGAGAGAGAAAGAGAACAATA 5274
             |||| || || ||||   | | | | |  | | ||| | |
Db       3834 AAAATAAGAAGAAAAATTAAAAATAAATGGAAACAACTACA 3874


RESULT 6
US-09-966-880A-12
; Sequence 12, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 148
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-12

  Query Match             2.3%;  Score 148;  DB 1;  Length 148;
  Best Local Similarity   100.0%;  Pred. No. 15;
  Matches  148;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1065 CCTCTTGATGAACCGGAGGAAGTTTCTTTACCAATTCAAAAATGTCCGCTGGGCTAAGGG 1124
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 CCTCTTGATGAACCGGAGGAAGTTTCTTTACCAATTCAAAAATGTCCGCTGGGCTAAGGG 60

Qy       1125 TCGGCGTGAGACCTACCTGTGCTACGTAGTGAAGAGGCGTGACAGTGCTACATCCTTTTC 1184
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 TCGGCGTGAGACCTACCTGTGCTACGTAGTGAAGAGGCGTGACAGTGCTACATCCTTTTC 120

Qy       1185 ACTGGACTTTGGTTATCTTCGCAATAAG 1212
             ||||||||||||||||||||||||||||
Db        121 ACTGGACTTTGGTTATCTTCGCAATAAG 148


RESULT 7
US-09-966-880A-14
; Sequence 14, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
;   LENGTH: 116
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-14

  Query Match             1.8%;  Score 116;  DB 1;  Length 116;
  Best Local Similarity   100.0%;  Pred. No. 30;
  Matches  116;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       3156 ATTATTTTTACTGCTGGAATACTTTTGTAGAAAACCACGAAAGAACTTTCAAAGCCTGGG 3215
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 ATTATTTTTACTGCTGGAATACTTTTGTAGAAAACCACGAAAGAACTTTCAAAGCCTGGG 60

Qy       3216 AAGGGCTGCATGAAAATTCAGTTCGTCTCTCCAGACAGCTTCGGCGCATCCTTTTG 3271
             |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 AAGGGCTGCATGAAAATTCAGTTCGTCTCTCCAGACAGCTTCGGCGCATCCTTTTG 116


RESULT 8
US-09-966-880A-10/c
; Sequence 10, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
;   LENGTH: 6564
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-10

  Query Match             0.5%;  Score 34.8;  DB 1;  Length 6564;
  Best Local Similarity   77.8%;  Pred. No. 1.5;
  Matches   42;  Conservative    0;  Mismatches   12;  Indels    0;  Gaps    0;

Qy       3555 TTTTTTTTTTTTTTTTTTTTTTTTTTAAACAAACAAACAAAAAACCCAAAAAA 3608
             ||||||   |||||| ||| ||| |||||| ||| ||| ||||||   ||||||
Db       3608 TTTTTTGGGTTTTTGTTTGTTTGTTTAAAAAAAAAAAAAAAAAAAAAAAAAA 3555


RESULT 9
US-09-966-880A-15/c
```

```
; Sequence 15, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
;   LENGTH: 2172
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-15

  Query Match             0.4%;  Score 29.4;  DB 1;  Length 2172;
  Best Local Similarity   56.8%;  Pred. No. 4.9;
  Matches   54;  Conservative    0;  Mismatches   41;  Indels    0;  Gaps    0;

Qy       3395 TTTCTCCTCCACATCAGCTTTTTCTTCTGCTGTTTCACCATTCAGAGCCCTCTGCTAAGG 3454
             ||| |     | | ||   ||| |||    || ||| |||| |   | | |   || |
Db       1589 TTTGTTGGATAAAGCACAATTTCCTTGCAATGCTTCCCCATCCTTCTCTCCCAAATATTG 1530

Qy       3455 TTCCTTTTCCCTCCCTTTTCTTTCTTTTGTTGTTT 3489
             |||  |||| ||| || |   || |||| || |||
Db       1529 TTCTCTTTCTCTCTCTCTCTTTTTTTTTTTTT 1495


RESULT 10
US-09-966-880A-13/c
; Sequence 13, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 13
;   LENGTH: 271
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-13

  Query Match             0.3%;  Score 20.6;  DB 1;  Length 271;
  Best Local Similarity   51.6%;  Pred. No. 43;
  Matches   47;  Conservative    0;  Mismatches   44;  Indels    0;  Gaps    0;

Qy       2782 GTGAGGACCGCAAGGCTGAGCCCGAGGGGCTGCGGCGGCTGCACCGCGCCGGGGTGCAAA 2841
              || | ||  || |     | |||| | | ||| || || ||| | |  |||| |
Db        263 GTCATGATGGCTATTTGCACCCCGGCGCGGTGCAGCCGCCGCAGCCCCTCGGGCTCAGCC 204

Qy       2842 TAGCCATCATGACCTTCAAAGGTGCGAAAGG 2872
              | ||  || | ||      ||  |||   ||
Db        203 TTGCGGTCCTCACAGAAGTAGAGGCGCGCGG 173


RESULT 11
US-09-966-880A-11/c
; Sequence 11, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
;   LENGTH: 87
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-11

  Query Match             0.3%;  Score 17.4;  DB 1;  Length 87;
  Best Local Similarity   62.8%;  Pred. No. 1.4e+02;
  Matches   27;  Conservative    0;  Mismatches   16;  Indels    0;  Gaps    0;

Qy        501 AAATATGAGGACTGAGGAATAAGAAATGAGTCAAGGATGGTTC 543
              || | | ||| | ||  |||    |  | | | || ||||||||
Db         46 AAGTCTCAGGCCAGAAAAATCTCACTTCAATTAATGATGGTTC 4


RESULT 12
US-09-966-880A-14/c
; Sequence 14, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
;   LENGTH: 116
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-14

  Query Match             0.3%;  Score 17;  DB 1;  Length 116;
  Best Local Similarity   52.1%;  Pred. No. 1e+02;
  Matches   38;  Conservative    0;  Mismatches   35;  Indels    0;  Gaps    0;

Qy       3106 TCTTCTACCCCCATATCCCCGCCTTTTTTTCCTTTTTTTTTTTTTTTGAAGATTATTTTTA 3165
              | |||   |  |   |||| | ||||       | |||  |  ||||  | |  | | ||
Db         76 TTTTCATGCAGCCCTTCCCAGGCTTTGAAAGTTCTTTCGTGGTTTTCTACAAAAGTATTC 17

Qy       3166 CTGCTGGAATACT 3178
```

```
                  | || | || | |
Db          16 CAGCAGTAAAAAT 4


RESULT 13
US-09-966-880A-11
; Sequence 11, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
;   LENGTH: 87
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-11

  Query Match             0.2%;  Score 15.8;  DB 1;  Length 87;
  Best Local Similarity   65.7%;  Pred. No. 1.4e+02;
  Matches   23;  Conservative    0;  Mismatches   12;  Indels    0;  Gaps    0;

Qy       1765 ATGATTAATTAAATTGATCTTTCGGCTACCCGAGA 1799
                || |||||||  || |||  |||      || ||||
Db          9 ATCATTAATTGAAGTGAGATTTTTCTGGCCTGAGA 43


RESULT 14
US-09-966-880A-12/c
; Sequence 12, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 148
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-12

  Query Match             0.2%;  Score 15.8;  DB 1;  Length 148;
  Best Local Similarity   60.5%;  Pred. No. 83;
  Matches   26;  Conservative    0;  Mismatches   17;  Indels    0;  Gaps    0;

Qy       1559 CTTGTCCAAGCAAAAATTTTAAATGTGAAAAACAAATTGTGTC 1601
                |||  || |||  | |||||  |  ||  ||| ||| |   ||
Db         58 CTTAGCCCAGCGGACATTTTTGAATTGGTAAAGAAACTTCCTC 16


Search completed: March 10, 2004, 13:40:47
Job time : 58.0535 secs

                                GenCore version 5.1.6
                  Copyright (c) 1993 - 2004  Compugen Ltd.


OM nucleic - nucleic search, using sw model

Run on:         March 10, 2004, 13:38:36 ; Search time 0.74294 Seconds
                                           (without alignments)
                                           3.483 Million cell updates/sec

Title:          US-09-966-880A-11
Perfect score:  87
Sequence:       1 agagaaccatcattaattga.....ctggacaccactatggacag 87

Scoring table:  IDENTITY_NUC
                Gapop 10.0 , Gapext 0.5

Searched:       7 seqs, 14872 residues

Total number of hits satisfying chosen parameters:      14

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
                 Maximum Match 100%
                 Listing first 45 summaries

Database :      US09966880A.seq:*

     Pred. No. is the number of results predicted by chance to have a
     score greater than or equal to the score of the result being printed,
     and is derived by analysis of the total score distribution.

                                SUMMARIES

                  %
Result            Query
  No.    Score  Match Length DB  ID                          Description
 ------------------------------------------------------------------------
    1       87  100.0     87  1  US-09-966-880A-11           Sequence 11, Appl
    2       87  100.0   5514  1  US-09-966-880A-9            Sequence 9, Appli
 c  3     17.4   20.0   6564  1  US-09-966-880A-10           Sequence 10, Appl
    4     15.8   18.2   6564  1  US-09-966-880A-10           Sequence 10, Appl
    5     14.4   16.6   2172  1  US-09-966-880A-15           Sequence 15, Appl
 c  6     14.4   16.6   5514  1  US-09-966-880A-9            Sequence 9, Appli
 c  7     13.4   15.4     87  1  US-09-966-880A-11           Sequence 11, Appl
 c  8     13.4   15.4   2172  1  US-09-966-880A-15           Sequence 15, Appl
    9     11.6   13.3    271  1  US-09-966-880A-13           Sequence 13, Appl
   10     10.4   12.0    148  1  US-09-966-880A-12           Sequence 12, Appl
 c 11     10.4   12.0    271  1  US-09-966-880A-13           Sequence 13, Appl
 c 12      9.8   11.3    148  1  US-09-966-880A-12           Sequence 12, Appl
   13      9.6   11.0    116  1  US-09-966-880A-14           Sequence 14, Appl
 c 14      8.4    9.7    116  1  US-09-966-880A-14           Sequence 14, Appl

                                ALIGNMENTS


RESULT 1
US-09-966-880A-11
; Sequence 11, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
```

```
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
;   LENGTH: 87
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-11

  Query Match            100.0%;  Score 87;  DB 1;  Length 87;
  Best Local Similarity  100.0%;  Pred. No. 9e-62;
  Matches   87;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 AGAGAACCATCATTAATTGAAGTGAGATTTTTCTGGCCTGAGACTTGCAGGGAGGCAAGA 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 AGAGAACCATCATTAATTGAAGTGAGATTTTTCTGGCCTGAGACTTGCAGGGAGGCAAGA 60

Qy         61 AGACACTCTGGACACCACTATGGACAG 87
              |||||||||||||||||||||||||||
Db         61 AGACACTCTGGACACCACTATGGACAG 87


RESULT 2
US-09-966-880A-9
; Sequence 9, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
;   LENGTH: 5514
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1)...(1031)
;   FEATURE:
;   NAME/KEY: exon
;   LOCATION: (1032)...(1118)
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1119)...(5514)
US-09-966-880A-9

  Query Match            100.0%;  Score 87;  DB 1;  Length 5514;
  Best Local Similarity  100.0%;  Pred. No. 8.8e-58;
  Matches   87;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 AGAGAACCATCATTAATTGAAGTGAGATTTTTCTGGCCTGAGACTTGCAGGGAGGCAAGA 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1032 AGAGAACCATCATTAATTGAAGTGAGATTTTTCTGGCCTGAGACTTGCAGGGAGGCAAGA 1091

Qy         61 AGACACTCTGGACACCACTATGGACAG 87
              |||||||||||||||||||||||||||
Db       1092 AGACACTCTGGACACCACTATGGACAG 1118


RESULT 3
US-09-966-880A-10/c
; Sequence 10, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
;   LENGTH: 6564
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-10

  Query Match            20.0%;  Score 17.4;  DB 1;  Length 6564;
  Best Local Similarity  62.8%;  Pred. No. 0.21;
  Matches   27;  Conservative    0;  Mismatches   16;  Indels    0;  Gaps    0;

Qy          4 GAACCATCATTAATTGAAGTGAGATTTTTCTGGCCTGAGACTT 46
              |||||||| || | | |  |   |||  || | ||| | | ||
Db        543 GAACCATCCTTGACTCATTTCTTATTCCTCAGTCCTCATATTT 501


RESULT 4
US-09-966-880A-10
; Sequence 10, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
;   LENGTH: 6564
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-10

  Query Match            18.2%;  Score 15.8;  DB 1;  Length 6564;
  Best Local Similarity  65.7%;  Pred. No. 2.5;
  Matches   23;  Conservative    0;  Mismatches   12;  Indels    0;  Gaps    0;

Qy          9 ATCATTAATTGAAGTGAGATTTTTCTGGCCTGAGA 43
              || |||||| || |||  |||       || ||||
Db       1765 ATGATTAATTAAATTGATCTTTCGGCTACCCGAGA 1799
```

```
RESULT 5
US-09-966-880A-15
; Sequence 15, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
;   LENGTH: 2172
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-15

  Query Match             16.6%;  Score 14.4;  DB 1;  Length 2172;
  Best Local Similarity   65.6%;  Pred. No. 4.1;
  Matches   21;  Conservative    0;  Mismatches   11;  Indels    0;  Gaps    0;

Qy          19 GAAGTGAGATTTTTCTGGCCTGAGACTTGCAG 50
               ||||  | |    |||||||  | ||| ||| |
Db         227 GAAGGAACACAGGTCTGGCCAGGGACGTGCTG 258


RESULT 6
US-09-966-880A-9/c
; Sequence 9, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
;   LENGTH: 5514
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1)...(1031)
;   FEATURE:
;   NAME/KEY: exon
;   LOCATION: (1032)...(1118)
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1119)...(5514)
US-09-966-880A-9

  Query Match             16.6%;  Score 14.4;  DB 1;  Length 5514;
  Best Local Similarity   51.6%;  Pred. No. 4.4;
  Matches   33;  Conservative    0;  Mismatches   31;  Indels    0;  Gaps    0;

Qy          24 GAGATTTTTCTGGCCTGAGACTTGCAGGGAGGCAAGAAGACACTCTGGACACCACTATGG 83
               |||  |    | ||||   | |  |    |  |    || | ||||| ||  || ||  |
Db         642 GAGCCTCAGATAGCCTCTAATTCCCCCATATTCCCACAGTCTCTCTGAACCTCAGTACAG 583

Qy          84 ACAG 87
               ||||
Db         582 ACAG 579


RESULT 7
US-09-966-880A-11/c
; Sequence 11, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
;   LENGTH: 87
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-11

  Query Match             15.4%;  Score 13.4;  DB 1;  Length 87;
  Best Local Similarity   55.3%;  Pred. No. 0.026;
  Matches   26;  Conservative    0;  Mismatches   21;  Indels    0;  Gaps    0;

Qy          21 AGTGAGATTTTTCTGGCCTGAGACTTGCAGGGAGGCAAGAAGACACT 67
               ||||   | || |   ||||  | |  ||||   | ||  |  ||||
Db          67 AGTGTCTTCTTGCCTCCCTGCAAGTCTCAGGCCAGAAAAATCTCACT 21


RESULT 8
US-09-966-880A-15/c
; Sequence 15, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
;   LENGTH: 2172
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-15

  Query Match             15.4%;  Score 13.4;  DB 1;  Length 2172;
  Best Local Similarity   52.7%;  Pred. No. 11;
```

```
  Matches   29;  Conservative    0;  Mismatches   26;  Indels    0;  Gaps    0;

Qy          9 ATCATTAATTGAAGTGAGATTTTTCTGGCCTGAGACTTGCAGGGAGGCAAGAAGA 63
              || | ||  |||||| | | ||||     ||   ||   |       ||| ||||
Db       1831 ATGAATACATGAAGTAACAATTTTTAACTCTTTTACAAACTTATGTACAATAAGA 1777


RESULT 9
US-09-966-880A-13
; Sequence 13, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 13
;   LENGTH: 271
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-13

  Query Match             13.3%;  Score 11.6;  DB 1;  Length 271;
  Best Local Similarity   54.8%;  Pred. No. 8.7;
  Matches   23;  Conservative    0;  Mismatches   19;  Indels    0;  Gaps    0;

Qy         36 GCCTGAGACTTGCAGGGAGGCAAGAAGACACTCTGGACACCA 77
              | |||    |  || |||  |||| || ||   ||  |  ||
Db        227 GGCTGCACCGCGCCGGGGTGCAAATAGCCATCATGACCTTCA 268


RESULT 10
US-09-966-880A-12
; Sequence 12, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 148
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-12

  Query Match             12.0%;  Score 10.4;  DB 1;  Length 148;
  Best Local Similarity   55.6%;  Pred. No. 21;
  Matches   20;  Conservative    0;  Mismatches   16;  Indels    0;  Gaps    0;

Qy         17 TTGAAGTGAGATTTTTCTGGCCTGAGACTTGCAGGG 52
                | |  ||||||  |  |||  ||  |   || || |
Db         61 TCGGCGTGAGACCTACCTGTGCTACGTAGTGAAGAG 96


RESULT 11
US-09-966-880A-13/c
; Sequence 13, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 13
;   LENGTH: 271
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-13

  Query Match             12.0%;  Score 10.4;  DB 1;  Length 271;
  Best Local Similarity   60.7%;  Pred. No. 55;
  Matches   17;  Conservative    0;  Mismatches   11;  Indels    0;  Gaps    0;

Qy         35 GGCCTGAGACTTGCAGGGAGGCAAGAAG 62
              || || ||  ||||| |       |||||
Db        213 GGGCTCAGCCTTGCGGTCCTCACAGAAG 186


RESULT 12
US-09-966-880A-12/c
; Sequence 12, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 148
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-12

  Query Match             11.3%;  Score 9.8;  DB 1;  Length 148;
  Best Local Similarity   66.7%;  Pred. No. 56;
  Matches   14;  Conservative    0;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 AGAGAACCATCATTAATTGAA 21
              ||| |||||   |  | ||||
Db        138 AGATAACCAAAGTCCAGTGAA 118
```

```
RESULT 13
US-09-966-880A-14
; Sequence 14, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
;   LENGTH: 116
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-14

  Query Match             11.0%;  Score 9.6;  DB 1;  Length 116;
  Best Local Similarity   56.2%;  Pred. No. 51;
  Matches   18;  Conservative    0;  Mismatches   14;  Indels    0;  Gaps    0;

Qy         45 TTGCAGGGAGGCAAGAAGACACTCTGGACACC 76
              ||| ||   |  || |||   ||| |  |  ||
Db         25 TTGTAGAAAACCACGAAAGAACTTTCAAAGCC 56


RESULT 14
US-09-966-880A-14/c
; Sequence 14, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
;   LENGTH: 116
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-14

  Query Match              9.7%;  Score 8.4;  DB 1;  Length 116;
  Best Local Similarity   57.7%;  Pred. No. 1.9e+02;
  Matches   15;  Conservative    0;  Mismatches   11;  Indels    0;  Gaps    0;

Qy         49 AGGGAGGCAAGAAGACACTCTGGACA 74
              | ||| ||    |  |  |||||| |
Db        113 AAGGATGCGCCGAAGCTGTCTGGAGA 88


Search completed: March 10, 2004, 13:40:47
Job time : 0.74294 secs
```

```
                                GenCore version 5.1.6
                          Copyright (c) 1993 - 2004  Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on:         March 10, 2004, 13:38:36 ; Search time 1.26385 Seconds
                                           (without alignments)
                                           3.483 Million cell updates/sec

Title:          US-09-966-880A-12
Perfect score:  148
Sequence:       1 cctcttgatgaaccggagga.....ttggttatcttcgcaataag 148

Scoring table:  IDENTITY_NUC
                Gapop 10.0 , Gapext 0.5

Searched:       7 seqs, 14872 residues

Total number of hits satisfying chosen parameters:      14

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
                 Maximum Match 100%
                 Listing first 45 summaries

Database :       US09966880A.seq:*

     Pred. No. is the number of results predicted by chance to have a
     score greater than or equal to the score of the result being printed,
     and is derived by analysis of the total score distribution.

                                    SUMMARIES

                    %
Result              Query
  No.    Score      Match  Length DB  ID                          Description
-------------------------------------------------------------------------------
    1      148  100.0     148  1  US-09-966-880A-12           Sequence 12, Appl
    2      148  100.0    6564  1  US-09-966-880A-10           Sequence 10, Appl
c   3     18.3   12.4    5514  1  US-09-966-880A-9            Sequence 9, Appli
c   4     15.8   10.7    6564  1  US-09-966-880A-10           Sequence 10, Appl
    5     15.4   10.4    5514  1  US-09-966-880A-9            Sequence 9, Appli
c   6     15.2   10.3     148  1  US-09-966-880A-12           Sequence 12, Appl
    7     14.8   10.0    2172  1  US-09-966-880A-15           Sequence 15, Appl
c   8     14.8   10.0    2172  1  US-09-966-880A-15           Sequence 15, Appl
c   9     13.8    9.3     271  1  US-09-966-880A-13           Sequence 13, Appl
c  10     13.4    9.1     116  1  US-09-966-880A-14           Sequence 14, Appl
   11     12.6    8.5     271  1  US-09-966-880A-13           Sequence 13, Appl
   12     10.4    7.0      87  1  US-09-966-880A-11           Sequence 11, Appl
c  13      9.8    6.6      87  1  US-09-966-880A-11           Sequence 11, Appl
   14        9    6.1     116  1  US-09-966-880A-14           Sequence 14, Appl

                                   ALIGNMENTS


RESULT 1
US-09-966-880A-12
; Sequence 12, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
```

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;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 148
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-12

  Query Match            100.0%;  Score 148;  DB 1;  Length 148;
  Best Local Similarity  100.0%;  Pred. No. 1.1;
  Matches  148;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 CCTCTTGATGAACCGGAGGAAGTTTCTTTACCAATTCAAAAATGTCCGCTGGGCTAAGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 CCTCTTGATGAACCGGAGGAAGTTTCTTTACCAATTCAAAAATGTCCGCTGGGCTAAGGG 60

Qy         61 TCGGCGTGAGACCTACCTGTGCTACGTAGTGAAGAGGCGTGACAGTGCTACATCCTTTTC 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 TCGGCGTGAGACCTACCTGTGCTACGTAGTGAAGAGGCGTGACAGTGCTACATCCTTTTC 120

Qy        121 ACTGGACTTTGGTTATCTTCGCAATAAG 148
              |||||||||||||||||||||||||||
Db        121 ACTGGACTTTGGTTATCTTCGCAATAAG 148


RESULT 2
US-09-966-880A-10
; Sequence 10, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
;   LENGTH: 6564
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-10

  Query Match            100.0%;  Score 148;  DB 1;  Length 6564;
  Best Local Similarity  100.0%;  Pred. No. 0.03;
  Matches  148;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 CCTCTTGATGAACCGGAGGAAGTTTCTTTACCAATTCAAAAATGTCCGCTGGGCTAAGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1065 CCTCTTGATGAACCGGAGGAAGTTTCTTTACCAATTCAAAAATGTCCGCTGGGCTAAGGG 1124

Qy         61 TCGGCGTGAGACCTACCTGTGCTACGTAGTGAAGAGGCGTGACAGTGCTACATCCTTTTC 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1125 TCGGCGTGAGACCTACCTGTGCTACGTAGTGAAGAGGCGTGACAGTGCTACATCCTTTTC 1184

Qy        121 ACTGGACTTTGGTTATCTTCGCAATAAG 148
              |||||||||||||||||||||||||||
Db       1185 ACTGGACTTTGGTTATCTTCGCAATAAG 1212


RESULT 3
US-09-966-880A-9/c
; Sequence 9, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
;   LENGTH: 5514
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1)...(1031)
;   FEATURE:
;   NAME/KEY: exon
;   LOCATION: (1032)...(1118)
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1119)...(5514)
US-09-966-880A-9

  Query Match            12.4%;  Score 18.3;  DB 1;  Length 5514;
  Best Local Similarity  64.6%;  Pred. No. 2.2;
  Matches   42;  Conservative    0;  Mismatches   22;  Indels    1;  Gaps    1;

Qy         71 ACCTACCTGTGCTACGTAG-TGAAGAGGCGTGACAGTGCTACATCCTTTTCACTGGACTT 129
              |||  |||| |||  |||| |||  | |   ||      ||||||| ||||   || || |
Db       2964 ACCCTCCTGGGCTGTGTAGATGAGAAAGGCAGAGGAATCTACATCTTTTTACATGCACCT 2905

Qy        130 TGGTT 134
              |||||
Db       2904 TGGTT 2900


RESULT 4
US-09-966-880A-10/c
; Sequence 10, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
;   LENGTH: 6564
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-10
```

```
  Query Match             10.7%;  Score 15.8;  DB 1;  Length 6564;
  Best Local Similarity   60.5%;  Pred. No. 2;
  Matches   26;  Conservative    0;  Mismatches   17;  Indels    0;  Gaps    0;

Qy         16 GAGGAAGTTTCTTTACCAATTCAAAAATGTCCGCTGGGCTAAG 58
              ||   | ||| |||  ||  |  ||||| |  ||| ||  |||
Db       1601 GACACAATTTGTTTTTCACATTTAAAATTTTTGCTTGGACAAG 1559


RESULT 5
US-09-966-880A-9
; Sequence 9, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
;   LENGTH: 5514
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1)...(1031)
;   FEATURE:
;   NAME/KEY: exon
;   LOCATION: (1032)...(1118)
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1119)...(5514)
US-09-966-880A-9

  Query Match             10.4%;  Score 15.4;  DB 1;  Length 5514;
  Best Local Similarity   76.0%;  Pred. No. 2.4;
  Matches   19;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy         69 AGACCTACCTGTGCTACGTAGTGAA 93
              |||||  |||| || ||  ||||||
Db       4349 AGACCAGCCTGGGCAACACAGTGAA 4373


RESULT 6
US-09-966-880A-12/c
; Sequence 12, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 148
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-12

  Query Match             10.3%;  Score 15.2;  DB 1;  Length 148;
  Best Local Similarity   45.2%;  Pred. No. 78;
  Matches   56;  Conservative    0;  Mismatches   68;  Indels    0;  Gaps    0;

Qy         24 TTCTTTACCAATTCAAAAATGTCCGCTGGGCTAAGGGTCGGCGTGAGACCTACCTGTGCT 83
              || ||     |  | |  || ||||  ||          || |   ||  ||    ||  ||
Db        147 TTATTGCGAAGATAACCAAAGTCCAGTGAAAAGGATGTAGCACTGTCACGCCTCTTCACT 88

Qy         84 ACGTAGTGAAGAGGCGTGACAGTGCTACATCCTTTTCACTGGACTTTGGTTATCTTCGCA 143
              ||||||   ||   ||  ||  | ||          ||  |||| ||  | |  |    |
Db         87 ACGTAGCACAGGTAGGTCTCACGCCGACCCTTAGCCCAGCGGACATTTTTGAATTGGTAA 28

Qy        144 ATAA 147
              | ||
Db         27 AGAA 24


RESULT 7
US-09-966-880A-15
; Sequence 15, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
;   LENGTH: 2172
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-15

  Query Match             10.0%;  Score 14.8;  DB 1;  Length 2172;
  Best Local Similarity   56.0%;  Pred. No. 5.9;
  Matches   28;  Conservative    0;  Mismatches   22;  Indels    0;  Gaps    0;

Qy         70 GACCTACCTGTGCTACGTAGTGAAGAGGCGTGACAGTGCTACATCCTTTT 119
              ||  | | | |    |  || ||||  || ||  ||  ||| |||   |||
Db       1876 GATTTCCTTTTCTGATATATTGAAATGGAGTCTCAAAGCTTCATAAATTT 1925


RESULT 8
US-09-966-880A-15/c
; Sequence 15, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
```

```
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
;   LENGTH: 2172
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-15

  Query Match             10.0%;  Score 14.8;  DB 1;  Length 2172;
  Best Local Similarity   64.7%;  Pred. No. 5.9;
  Matches   22;  Conservative    0;  Mismatches   12;  Indels    0;  Gaps    0;

Qy        106 TGCTACATCCTTTTCACTGGACTTTGGTTATCTT 139
              | |  ||||||| || |   | | | ||| ||||
Db       1556 TTCCCCATCCTTCTCTCCCAAATATTGTTCTCTT 1523


RESULT 9
US-09-966-880A-13/c
; Sequence 13, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 13
;   LENGTH: 271
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-13

  Query Match             9.3%;  Score 13.8;  DB 1;  Length 271;
  Best Local Similarity   49.3%;  Pred. No. 45;
  Matches   36;  Conservative    0;  Mismatches   37;  Indels    0;  Gaps    0;

Qy         76 CCTGTGCTACGTAGTGAAGAGGCGTGACAGTGCTACATCCTTTTCACTGGACTTTGGTTA 135
              | || | | |  | ||||  | |   |  |  |  | |  ||||   || | | |
Db        204 CTTGCGGTCCTCACAGAAGTAGAGGCGCGCGGTGAAGATCCTCAGACTGAGGTTGGGGTT 145

Qy        136 TCTTCGCAATAAG 148
              | |||||  |||
Db        144 CCCTCGCAGAAAG 132


RESULT 10
US-09-966-880A-14/c
; Sequence 14, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
;   LENGTH: 116
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-14

  Query Match             9.1%;  Score 13.4;  DB 1;  Length 116;
  Best Local Similarity   46.3%;  Pred. No. 1e+02;
  Matches   44;  Conservative    0;  Mismatches   51;  Indels    0;  Gaps    0;

Qy         54 CTAAGGGTCGGCGTGAGACCTACCTGTGCTACGTAGTGAAGAGGCGTGACAGTGCTACAT 113
              | ||| ||  |    ||  |   | | |  ||| | ||||    | ||       | |
Db        116 CAAAAGGATGCGCCGAAGCTGTCTGGAGAGACGAACTGAATTTTCATGCAGCCCTTCCCA 57

Qy        114 CCTTTTCACTGGACTTTGGTTATCTTCGCAATAAG 148
              |||  |  | |||| ||  | |||   | |||
Db         56 GGCTTTGAAAGTTCTTTCGTGGTTTTCTACAAAAG 22


RESULT 11
US-09-966-880A-13
; Sequence 13, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 13
;   LENGTH: 271
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-13

  Query Match             8.5%;  Score 12.6;  DB 1;  Length 271;
  Best Local Similarity   66.7%;  Pred. No. 47;
  Matches   18;  Conservative    0;  Mismatches    9;  Indels    0;  Gaps    0;

Qy         49 CTGGGCTAAGGGTCGGCGTGAGACCTA 75
              ||  ||||    ||||  || ||||||
Db         28 CTCCGCTACATCTCGGACTGGGACCTA 54


RESULT 12
US-09-966-880A-11
; Sequence 11, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
```

```
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
;   LENGTH: 87
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-11

  Query Match             7.0%;  Score 10.4;  DB 1;  Length 87;
  Best Local Similarity   55.6%;  Pred. No. 1.5e+02;
  Matches   20;  Conservative    0;  Mismatches   16;  Indels    0;  Gaps    0;

Qy         61 TCGGCGTGAGACCTACCTGTGCTACGTAGTGAAGAG 96
              | |  ||||||  |  |||  ||  |   || || |
Db         17 TTGAAGTGAGATTTTTCTGGCCTGAGACTTGCAGGG 52


RESULT 13
US-09-966-880A-11/c
; Sequence 11, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
;   LENGTH: 87
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-11

  Query Match             6.6%;  Score 9.8;  DB 1;  Length 87;
  Best Local Similarity   66.7%;  Pred. No. 1.5e+02;
  Matches   14;  Conservative    0;  Mismatches    7;  Indels    0;  Gaps    0;

Qy        118 TTCACTGGACTTTGGTTATCT 138
              |||| |   |   ||||| |||
Db         21 TTCAATTAATGATGGTTCTCT 1


RESULT 14
US-09-966-880A-14
; Sequence 14, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
;   LENGTH: 116
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-14

  Query Match             6.1%;  Score 9;  DB 1;  Length 116;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        111 CATCCTTTT 119
              |||||||||
Db        107 CATCCTTTT 115


Search completed: March 10, 2004, 13:40:47
Job time : 1.26385 secs

                                GenCore version 5.1.6
                          Copyright (c) 1993 - 2004  Compugen Ltd.


OM nucleic - nucleic search, using sw model

Run on:         March 10, 2004, 13:38:36 ; Search time 2.31421 Seconds
                                            (without alignments)
                                           3.483 Million cell updates/sec

Title:          US-09-966-880A-13
Perfect score:  271
Sequence:       1 aacggctgccacgtggaatt.........agccatcatgaccttcaaag 271

Scoring table:  IDENTITY_NUC
                Gapop 10.0 , Gapext 0.5

Searched:       7 seqs, 14872 residues

Total number of hits satisfying chosen parameters:      14

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
                 Maximum Match 100%
                 Listing first 45 summaries

Database :       US09966880A.seq:*

     Pred. No. is the number of results predicted by chance to have a
     score greater than or equal to the score of the result being printed,
     and is derived by analysis of the total score distribution.

                                    SUMMARIES

                  %
Result            Query
   No.    Score  Match Length DB  ID                          Description
 ---------------------------------------------------------------------------
     1      271  100.0    271  1  US-09-966-880A-13           Sequence 13, Appl
     2      271  100.0   6564  1  US-09-966-880A-10           Sequence 10, Appl
 c   3     20.6    7.6   6564  1  US-09-966-880A-10           Sequence 10, Appl
 c   4     20.2    7.5    271  1  US-09-966-880A-13           Sequence 13, Appl
 c   5     17.6    6.5   5514  1  US-09-966-880A-9            Sequence 9, Appli
     6       16    5.9   5514  1  US-09-966-880A-9            Sequence 9, Appli
 c   7     13.8    5.1    148  1  US-09-966-880A-12           Sequence 12, Appl
 c   8     13.4    4.9   2172  1  US-09-966-880A-15           Sequence 15, Appl
     9     12.6    4.6    148  1  US-09-966-880A-12           Sequence 12, Appl
    10       12    4.4   2172  1  US-09-966-880A-15           Sequence 15, Appl
    11     11.6    4.3     87  1  US-09-966-880A-11           Sequence 11, Appl
 c  12     10.4    3.8     87  1  US-09-966-880A-11           Sequence 11, Appl
```

c	13	10	3.7	116	1	US-09-966-880A-14	Sequence 14, Appl
	14	8.8	3.2	116	1	US-09-966-880A-14	Sequence 14, Appl

ALIGNMENTS

```
RESULT 1
US-09-966-880A-13
; Sequence 13, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 13
;   LENGTH: 271
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-13

  Query Match             100.0%;  Score 271;  DB 1;  Length 271;
  Best Local Similarity   100.0%;  Pred. No. 0.68;
  Matches  271;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 AACGGCTGCCACGTGGAATTGCTCTTCCTCCGCTACATCTCGGACTGGGACCTAGACCCT 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 AACGGCTGCCACGTGGAATTGCTCTTCCTCCGCTACATCTCGGACTGGGACCTAGACCCT 60

Qy         61 GGCCGCTGCTACCGCGTCACCTGGTTCACCTCCTGGAGCCCCTGCTACGACTGTGCCCGA 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GGCCGCTGCTACCGCGTCACCTGGTTCACCTCCTGGAGCCCCTGCTACGACTGTGCCCGA 120

Qy        121 CATGTGGCCGACTTTCTGCGAGGGAACCCCAACCTCAGTCTGAGGATCTTCACCGCGCGC 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CATGTGGCCGACTTTCTGCGAGGGAACCCCAACCTCAGTCTGAGGATCTTCACCGCGCGC 180

Qy        181 CTCTACTTCTGTGAGGACCGCAAGGCTGAGCCCGAGGGGCTGCGGCGGCTGCACCGCGCC 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 CTCTACTTCTGTGAGGACCGCAAGGCTGAGCCCGAGGGGCTGCGGCGGCTGCACCGCGCC 240

Qy        241 GGGGTGCAAATAGCCATCATGACCTTCAAAG 271
              |||||||||||||||||||||||||||||||
Db        241 GGGGTGCAAATAGCCATCATGACCTTCAAAG 271


RESULT 2
US-09-966-880A-10
; Sequence 10, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
;   LENGTH: 6564
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-10

  Query Match             100.0%;  Score 271;  DB 1;  Length 6564;
  Best Local Similarity   100.0%;  Pred. No. 0.03;
  Matches  271;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 AACGGCTGCCACGTGGAATTGCTCTTCCTCCGCTACATCTCGGACTGGGACCTAGACCCT 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       2592 AACGGCTGCCACGTGGAATTGCTCTTCCTCCGCTACATCTCGGACTGGGACCTAGACCCT 2651

Qy         61 GGCCGCTGCTACCGCGTCACCTGGTTCACCTCCTGGAGCCCCTGCTACGACTGTGCCCGA 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       2652 GGCCGCTGCTACCGCGTCACCTGGTTCACCTCCTGGAGCCCCTGCTACGACTGTGCCCGA 2711

Qy        121 CATGTGGCCGACTTTCTGCGAGGGAACCCCAACCTCAGTCTGAGGATCTTCACCGCGCGC 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       2712 CATGTGGCCGACTTTCTGCGAGGGAACCCCAACCTCAGTCTGAGGATCTTCACCGCGCGC 2771

Qy        181 CTCTACTTCTGTGAGGACCGCAAGGCTGAGCCCGAGGGGCTGCGGCGGCTGCACCGCGCC 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       2772 CTCTACTTCTGTGAGGACCGCAAGGCTGAGCCCGAGGGGCTGCGGCGGCTGCACCGCGCC 2831

Qy        241 GGGGTGCAAATAGCCATCATGACCTTCAAAG 271
              |||||||||||||||||||||||||||||||
Db       2832 GGGGTGCAAATAGCCATCATGACCTTCAAAG 2862


RESULT 3
US-09-966-880A-10/c
; Sequence 10, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
;   LENGTH: 6564
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-10

  Query Match              7.6%;  Score 20.6;  DB 1;  Length 6564;
  Best Local Similarity   51.6%;  Pred. No. 1.8;
  Matches   47;  Conservative    0;  Mismatches   44;  Indels    0;  Gaps    0;

Qy        173 CCGCGCGCCTCTACTTCTGTGAGGACCGCAAGGCTGAGCCCGAGGGGCTGCGGCGGCTGC 232
              ||   |||  ||       || | ||  || |      | ||||  | | |||| || || ||
Db       2872 CCTTTCGCACCTTTGAAGGTCATGATGGCTATTTGCACCCCGGCGCGGTGCAGCCGCCGC 2813

Qy        233 ACCGCGCCGGGGTGCAAATAGCCATCATGAC 263
              | | |  |||| |     | ||  || | ||
Db       2812 AGCCCCTCGGGCTCAGCCTTGCGGTCCTCAC 2782
```

```
RESULT 4
US-09-966-880A-13/c
; Sequence 13, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 13
;   LENGTH: 271
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-13

  Query Match             7.5%;  Score 20.2;  DB 1;  Length 271;
  Best Local Similarity   54.8%;  Pred. No. 42;
  Matches   40;  Conservative    0;  Mismatches   33;  Indels    0;  Gaps    0;

Qy        191 GTGAGGACCGCAAGGCTGAGCCCGAGGGGCTGCGGCGGCTGCACCGCGCCGGGGGTGCAAA 250
              || | ||  || |     | ||||  | | ||| || || ||| | |  |||| |
Db        263 GTCATGATGGCTATTTGCACCCCGGCGCGGTGCAGCCGCCGCAGCCCCTCGGGCTCAGCC 204

Qy        251 TAGCCATCATGAC 263
              | ||  || | ||
Db        203 TTGCGGTCCTCAC 191


RESULT 5
US-09-966-880A-9/c
; Sequence 9, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
;   LENGTH: 5514
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1)...(1031)
;   FEATURE:
;   NAME/KEY: exon
;   LOCATION: (1032)...(1118)
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1119)...(5514)
US-09-966-880A-9

  Query Match             6.5%;  Score 17.6;  DB 1;  Length 5514;
  Best Local Similarity   52.8%;  Pred. No. 2.3;
  Matches   38;  Conservative    0;  Mismatches   34;  Indels    0;  Gaps    0;

Qy         31 CGCTACATCTCGGACTGGGACCTAGACCCTGGCCGCTGCTACCGCGTCACCTGGTTCACC 90
              | || ||  |   | |  || || | || |    ||| || ||  | || |     | ||
Db       1008 CCCTTCACATTCAAATTTGAGCTTGCCCTTTTGGGCTCCTCCCCTGACAGCATCACCCCC 949

Qy         91 TCCTGGAGCCCC 102
                 || ||  ||||
Db        948 ACCAGGTACCCC 937


RESULT 6
US-09-966-880A-9
; Sequence 9, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
;   LENGTH: 5514
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1)...(1031)
;   FEATURE:
;   NAME/KEY: exon
;   LOCATION: (1032)...(1118)
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1119)...(5514)
US-09-966-880A-9

  Query Match             5.9%;  Score 16;  DB 1;  Length 5514;
  Best Local Similarity   55.4%;  Pred. No. 2.3;
  Matches   31;  Conservative    0;  Mismatches   25;  Indels    0;  Gaps    0;

Qy         36 CATCTCGGACTGGGACCTAGACCCTGGCCGCTGCTACCGCGTCACCTGGTTCACCT 91
              || |   | ||||   |||   |||||||  || | |      |||||  | |||
Db       2023 CAGCCGAGGCTGGTCTCTAAGTCCTGGCCCAAGCGATCCTCCTGCCTGGGCCTCCT 2078


RESULT 7
US-09-966-880A-12/c
; Sequence 12, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
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;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 148
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-12

  Query Match             5.1%;  Score 13.8;  DB 1;  Length 148;
  Best Local Similarity   49.3%;  Pred. No. 84;
  Matches   36;  Conservative    0;  Mismatches   37;  Indels    0;  Gaps    0;

Qy        132 CTTTCTGCGAGGGAACCCCAACCTCAGTCTGAGGATCTTCACCGCGCGCCTCTACTTCTG 191
              |||  ||||| |  | || ||   ||||   | |    |  |   |  | |  ||||
Db        148 CTTATTGCGAAGATAACCAAAGTCCAGTGAAAAGGATGTAGCACTGTCACGCCTCTTCAC 89

Qy        192 TGAGGACCGCAAG 204
              |  | | | || |
Db         88 TACGTAGCACAGG 76


RESULT 8
US-09-966-880A-15/c
; Sequence 15, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
;   LENGTH: 2172
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-15

  Query Match             4.9%;  Score 13.4;  DB 1;  Length 2172;
  Best Local Similarity   52.7%;  Pred. No. 6;
  Matches   29;  Conservative    0;  Mismatches   26;  Indels    0;  Gaps    0;

Qy         33 CTACATCTCGGACTGGGACCTAGACCCTGGCCGCTGCTACCGCGTCACCTGGTTC 87
              ||| |  ||  |     || | ||| ||    | |||| ||  |||     ||||
Db        361 CTAAAAGTCATAGAAAAACGTTGACACTTTAGGATGCTCCCAGGTCCTGCAGTTC 307


RESULT 9
US-09-966-880A-12
; Sequence 12, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 148
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-12

  Query Match             4.6%;  Score 12.6;  DB 1;  Length 148;
  Best Local Similarity   66.7%;  Pred. No. 85;
  Matches   18;  Conservative    0;  Mismatches    9;  Indels    0;  Gaps    0;

Qy         28 CTCCGCTACATCTCGGACTGGGACCTA 54
              ||  ||||    ||||  || ||||||
Db         49 CTGGGCTAAGGGTCGGCGTGAGACCTA 75


RESULT 10
US-09-966-880A-15
; Sequence 15, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
;   LENGTH: 2172
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-15

  Query Match             4.4%;  Score 12;  DB 1;  Length 2172;
  Best Local Similarity   48.5%;  Pred. No. 6.1;
  Matches   33;  Conservative    0;  Mismatches   35;  Indels    0;  Gaps    0;

Qy         87 CACCTCCTGGAGCCCCTGCTACGACTGTGCCCGACATGTGGCCGACTTTCTGCGAGGGAA 146
              | | |||   || || || |     |  | |   ||| |     ||   ||   | ||
Db        522 CTCTTCCATCAGGCCATGATCTATAGGACCTCCTAATGAGAGTATCTGGGTGATTGTGAC 581

Qy        147 CCCCAACC 154
              ||| ||||
Db        582 CCCAAACC 589


RESULT 11
US-09-966-880A-11
; Sequence 11, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
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;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
;   LENGTH: 87
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-11

  Query Match             4.3%;  Score 11.6;  DB 1;  Length 87;
  Best Local Similarity   54.8%;  Pred. No. 1.5e+02;
  Matches   23;  Conservative    0;  Mismatches   19;  Indels    0;  Gaps    0;

Qy        227 GGCTGCACCGCGCCGGGGTGCAAATAGCCATCATGACCTTCA 268
              | |||    |  || |||  ||||  || ||   ||  |  ||
Db         36 GCCTGAGACTTGCAGGGAGGCAAGAAGACACTCTGGACACCA 77


RESULT 12
US-09-966-880A-11/c
; Sequence 11, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
;   LENGTH: 87
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-11

  Query Match             3.8%;  Score 10.4;  DB 1;  Length 87;
  Best Local Similarity   60.7%;  Pred. No. 1.5e+02;
  Matches   17;  Conservative    0;  Mismatches   11;  Indels    0;  Gaps    0;

Qy        186 CTTCTGTGAGGACCGCAAGGCTGAGCCC 213
              |||||        | ||||| || || ||
Db         62 CTTCTTGCCTCCCTGCAAGTCTCAGGCC 35


RESULT 13
US-09-966-880A-14/c
; Sequence 14, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
;   LENGTH: 116
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-14

  Query Match             3.7%;  Score 10;  DB 1;  Length 116;
  Best Local Similarity   52.4%;  Pred. No. 1.1e+02;
  Matches   22;  Conservative    0;  Mismatches   20;  Indels    0;  Gaps    0;

Qy        228 GCTGCACCGCGCCGGGGTGCAAATAGCCATCATGACCTTCAA 269
              || || |  | | ||  |  |||   |  || ||   ||| |
Db         69 GCAGCCCTTCCCAGGCTTTGAAAGTTCTTTCGTGGTTTTCTA 28


RESULT 14
US-09-966-880A-14
; Sequence 14, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
;   LENGTH: 116
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-14

  Query Match             3.2%;  Score 8.8;  DB 1;  Length 116;
  Best Local Similarity   57.1%;  Pred. No. 1.1e+02;
  Matches   16;  Conservative    0;  Mismatches   12;  Indels    0;  Gaps    0;

Qy        244 GTGCAAATAGCCATCATGACCTTCAAAG 271
              ||  |||    |   |  || |||||||
Db         27 GTAGAAAACCACGAAAGAACTTTCAAAG 54


Search completed: March 10, 2004, 13:40:48
Job time : 3.31421 secs

                          GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on:         March 10, 2004, 13:38:36 ; Search time 0.990586 Seconds
                                           (without alignments)
                                           3.483 Million cell updates/sec


Title:          US-09-966-880A-14
Perfect score:  116
Sequence:       1 attatttttactgctggaat.....agcttcggcgcatccttttg 116
```

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 0.5

Searched: 7 seqs, 14872 residues

Total number of hits satisfying chosen parameters: 14

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : US09966880A.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.		Score	% Query Match	Length	DB	ID	Description
1		116	100.0	116	1	US-09-966-880A-14	Sequence 14, Appl
2		116	100.0	6564	1	US-09-966-880A-10	Sequence 10, Appl
c 3		17	14.7	6564	1	US-09-966-880A-10	Sequence 10, Appl
4		16.2	14.0	5514	1	US-09-966-880A-9	Sequence 9, Appli
c 5		16	13.8	2172	1	US-09-966-880A-15	Sequence 15, Appl
c 6		14.8	12.8	5514	1	US-09-966-880A-9	Sequence 9, Appli
7		13.8	11.9	2172	1	US-09-966-880A-15	Sequence 15, Appl
c 8		13.4	11.6	148	1	US-09-966-880A-12	Sequence 12, Appl
c 9		10.8	9.3	116	1	US-09-966-880A-14	Sequence 14, Appl
c 10		10	8.6	271	1	US-09-966-880A-13	Sequence 13, Appl
11		9.6	8.3	87	1	US-09-966-880A-11	Sequence 11, Appl
12		9	7.8	148	1	US-09-966-880A-12	Sequence 12, Appl
13		8.8	7.6	271	1	US-09-966-880A-13	Sequence 13, Appl
c 14		8.4	7.2	87	1	US-09-966-880A-11	Sequence 11, Appl

ALIGNMENTS

RESULT 1
US-09-966-880A-14
; Sequence 14, Application US/09966880A
; GENERAL INFORMATION:
; APPLICANT: Honjo, Tasuku
; APPLICANT: Muramatsu, Masamichi
; TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
; FILE REFERENCE: 06501-088001
; CURRENT APPLICATION NUMBER: US/09/966,880A
; CURRENT FILING DATE: 2001-09-28
; PRIOR APPLICATION NUMBER: PCT/JP00/01918
; PRIOR FILING DATE: 2000-03-28
; PRIOR APPLICATION NUMBER: JP 11-371382
; PRIOR FILING DATE: 1999-12-27
; PRIOR APPLICATION NUMBER: JP 11-178999
; PRIOR FILING DATE: 1999-06-24
; PRIOR APPLICATION NUMBER: JP 11-87192
; PRIOR FILING DATE: 1999-03-29
; NUMBER OF SEQ ID NOS: 36
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 116
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-966-880A-14

Query Match 100.0%; Score 116; DB 1; Length 116;
Best Local Similarity 100.0%; Pred. No. 1.2;
Matches 116; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 ATTATTTTTACTGCTGGAATACTTTTGTAGAAAACCACGAAAGAACTTTCAAAGCCTGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 ATTATTTTTACTGCTGGAATACTTTTGTAGAAAACCACGAAAGAACTTTCAAAGCCTGGG 60

Qy         61 AAGGGCTGCATGAAAATTCAGTTCGTCTCTCCAGACAGCTTCGGCGCATCCTTTTG 116
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 AAGGGCTGCATGAAAATTCAGTTCGTCTCTCCAGACAGCTTCGGCGCATCCTTTTG 116
```

RESULT 2
US-09-966-880A-10
; Sequence 10, Application US/09966880A
; GENERAL INFORMATION:
; APPLICANT: Honjo, Tasuku
; APPLICANT: Muramatsu, Masamichi
; TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
; FILE REFERENCE: 06501-088001
; CURRENT APPLICATION NUMBER: US/09/966,880A
; CURRENT FILING DATE: 2001-09-28
; PRIOR APPLICATION NUMBER: PCT/JP00/01918
; PRIOR FILING DATE: 2000-03-28
; PRIOR APPLICATION NUMBER: JP 11-371382
; PRIOR FILING DATE: 1999-12-27
; PRIOR APPLICATION NUMBER: JP 11-178999
; PRIOR FILING DATE: 1999-06-24
; PRIOR APPLICATION NUMBER: JP 11-87192
; PRIOR FILING DATE: 1999-03-29
; NUMBER OF SEQ ID NOS: 36
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
; LENGTH: 6564
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-966-880A-10

Query Match 100.0%; Score 116; DB 1; Length 6564;
Best Local Similarity 100.0%; Pred. No. 0.03;
Matches 116; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 ATTATTTTTACTGCTGGAATACTTTTGTAGAAAACCACGAAAGAACTTTCAAAGCCTGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       3156 ATTATTTTTACTGCTGGAATACTTTTGTAGAAAACCACGAAAGAACTTTCAAAGCCTGGG 3215

Qy         61 AAGGGCTGCATGAAAATTCAGTTCGTCTCTCCAGACAGCTTCGGCGCATCCTTTTG 116
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       3216 AAGGGCTGCATGAAAATTCAGTTCGTCTCTCCAGACAGCTTCGGCGCATCCTTTTG 3271
```

RESULT 3
US-09-966-880A-10/c
; Sequence 10, Application US/09966880A
; GENERAL INFORMATION:
; APPLICANT: Honjo, Tasuku
; APPLICANT: Muramatsu, Masamichi
; TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
; FILE REFERENCE: 06501-088001
; CURRENT APPLICATION NUMBER: US/09/966,880A
; CURRENT FILING DATE: 2001-09-28
; PRIOR APPLICATION NUMBER: PCT/JP00/01918
; PRIOR FILING DATE: 2000-03-28
; PRIOR APPLICATION NUMBER: JP 11-371382
; PRIOR FILING DATE: 1999-12-27
; PRIOR APPLICATION NUMBER: JP 11-178999
; PRIOR FILING DATE: 1999-06-24
; PRIOR APPLICATION NUMBER: JP 11-87192
; PRIOR FILING DATE: 1999-03-29
; NUMBER OF SEQ ID NOS: 36
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
; LENGTH: 6564
; TYPE: DNA
; ORGANISM: Homo sapiens

```
US-09-966-880A-10

  Query Match             14.7%;  Score 17;  DB 1;  Length 6564;
  Best Local Similarity   52.1%;  Pred. No. 1.9;
  Matches   38;  Conservative    0;  Mismatches   35;  Indels    0;  Gaps    0;

Qy          4 ATTTTTACTGCTGGAATACTTTTGTAGAAAACCACGAAAGAACTTTCAAAGCCTGGGAAG 63
              | | || | || | || | | | | |||| | ||| |      |||| | ||||
Db       3178 AGTATTCCAGCAGTAAAAATAATCTTCAAAAAAAAAAAAAAAGGAAAAAAAGGCGGGGATA 3119

Qy         64 GGCTGCATGAAAA 76
                | |  ||| |
Db       3118 TGGGGGTAGAAGA 3106


RESULT 4
US-09-966-880A-9
; Sequence 9, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
;   LENGTH: 5514
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1)...(1031)
;   FEATURE:
;   NAME/KEY: exon
;   LOCATION: (1032)...(1118)
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1119)...(5514)
US-09-966-880A-9

  Query Match             14.0%;  Score 16.2;  DB 1;  Length 5514;
  Best Local Similarity   52.2%;  Pred. No. 2.3;
  Matches   36;  Conservative    0;  Mismatches   33;  Indels    0;  Gaps    0;

Qy         30 GAAAACCACGAAAGAACTTTCAAAGCCTGGGAAGGGCTGCATGAAAATTCAGTTCGTCTC 89
              |||    |  |||||      ||   ||||   ||   |  ||   |||||| |  | |
Db       4437 GAAGGACTGCAAAGAGGGAAGAAGCTCTGGTGGGGTGAGGGTGGTGATTCAGGTTCTGTA 4496

Qy         90 TCCAGACAG 98
              ||| ||| |
Db       4497 TCCTGACTG 4505


RESULT 5
US-09-966-880A-15/c
; Sequence 15, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
;   LENGTH: 2172
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-15

  Query Match             13.8%;  Score 16;  DB 1;  Length 2172;
  Best Local Similarity   50.0%;  Pred. No. 5.5;
  Matches   40;  Conservative    0;  Mismatches   40;  Indels    0;  Gaps    0;

Qy          7 TTTACTGCTGGAATACTTTTGTAGAAAACCACGAAAGAACTTTCAAAGCCTGGGAAGGGC 66
              ||| |||    || | |||  || ||| | |   ||     |||  |||       | ||
Db       2032 TTTGCTGTCATAAAAGTTTACTAAAAATCAAGAGAAATGGCTTCGTAGCACCATTACTGC 1973

Qy         67 TGCATGAAAATTCAGTTCGT 86
                | | ||||   | |||
Db       1972 AATGTTACAATTACATACGT 1953


RESULT 6
US-09-966-880A-9/c
; Sequence 9, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
;   LENGTH: 5514
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1)...(1031)
;   FEATURE:
;   NAME/KEY: exon
;   LOCATION: (1032)...(1118)
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1119)...(5514)
US-09-966-880A-9

  Query Match             12.8%;  Score 14.8;  DB 1;  Length 5514;
  Best Local Similarity   59.5%;  Pred. No. 2.4;
  Matches   25;  Conservative    0;  Mismatches   17;  Indels    0;  Gaps    0;

Qy         16 GGAATACTTTTGTAGAAAACCACGAAAGAACTTTCAAAGCCT 57
                | |||| || |||| | | |    | || | ||  | ||| |
Db        703 GTAATATTTATGTAAATACCTTAAAGAGCATTTAAATAGCTT 662
```

```
RESULT 7
US-09-966-880A-15
; Sequence 15, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
;   LENGTH: 2172
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-15

  Query Match           11.9%;  Score 13.8;  DB 1;  Length 2172;
  Best Local Similarity  63.6%;  Pred. No. 5.9;
  Matches   21;  Conservative    0;  Mismatches   12;  Indels    0;  Gaps    0;

Qy         51 AAAGCCTGGGAAGGGCTGCATGAAAATTCAGTT 83
              || |   ||||||   |||| | |||||  | |
Db       1545 AAGGATGGGGAAGCATTGCAAGGAAATTGTGCT 1577


RESULT 8
US-09-966-880A-12/c
; Sequence 12, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 148
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-12

  Query Match           11.6%;  Score 13.4;  DB 1;  Length 148;
  Best Local Similarity  46.3%;  Pred. No. 75;
  Matches   44;  Conservative    0;  Mismatches   51;  Indels    0;  Gaps    0;

Qy         22 CTTTTGTAGAAAACCACGAAAGAACTTTCAAAGCCTGGGAAGGGCTGCATGAAAATTCAG 81
              ||| |   ||| |  || |||| |  | | |||     | |       || |    ||||
Db        148 CTTATTGCGAAGATAACCAAAGTCCAGTGAAAAGGATGTAGCACTGTCACGCCTCTTCAC 89

Qy         82 TTCGTCTCTCCAGACAGCTTCGGCGCATCCTTTTG 116
              | |||  | |  |   |  ||     |  || || |
Db         88 TACGTAGCACAGGTAGGTCTCACGCCGACCCTTAG 54


RESULT 9
US-09-966-880A-14/c
; Sequence 14, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
;   LENGTH: 116
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-14

  Query Match           9.3%;  Score 10.8;  DB 1;  Length 116;
  Best Local Similarity  60.0%;  Pred. No. 1e+02;
  Matches   18;  Conservative    0;  Mismatches   12;  Indels    0;  Gaps    0;

Qy         18 AATACTTTTGTAGAAAACCACGAAAGAACT 47
              | | |||| || |     | || |||| | |
Db         47 AGTTCTTTCGTGGTTTTCTACAAAAGTATT 18


RESULT 10
US-09-966-880A-13/c
; Sequence 13, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 13
;   LENGTH: 271
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-13

  Query Match           8.6%;  Score 10;  DB 1;  Length 271;
  Best Local Similarity  52.4%;  Pred. No. 48;
  Matches   22;  Conservative    0;  Mismatches   20;  Indels    0;  Gaps    0;

Qy         28 TAGAAAACCACGAAAGAACTTTCAAAGCCTGGGAAGGGCTGC 69
              | |||   || ||  |   |||  |  || | |  | || ||
Db        269 TTGAAGGTCATGATGGCTATTTGCACCCCGGCGCGGTGCAGC 228


RESULT 11
US-09-966-880A-11
```

```
; Sequence 11, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
;   LENGTH: 87
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-11

  Query Match             8.3%;  Score 9.6;  DB 1;  Length 87;
  Best Local Similarity   56.2%;  Pred. No. 1.4e+02;
  Matches   18;  Conservative    0;  Mismatches   14;  Indels    0;  Gaps    0;

Qy         25 TTGTAGAAAACCACGAAAGAACTTTCAAAGCC 56
              ||| ||  |  || |||   ||| |  |  ||
Db         45 TTGCAGGGAGGCAAGAAGACACTCTGGACACC 76


RESULT 12
US-09-966-880A-12
; Sequence 12, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 148
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-12

  Query Match             7.8%;  Score 9;  DB 1;  Length 148;
  Best Local Similarity   100.0%;  Pred. No. 87;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        107 CATCCTTTT 115
              |||||||||
Db        111 CATCCTTTT 119


RESULT 13
US-09-966-880A-13
; Sequence 13, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 13
;   LENGTH: 271
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-13

  Query Match             7.6%;  Score 8.8;  DB 1;  Length 271;
  Best Local Similarity   57.1%;  Pred. No. 50;
  Matches   16;  Conservative    0;  Mismatches   12;  Indels    0;  Gaps    0;

Qy         27 GTAGAAAACCACGAAAGAACTTTCAAAG 54
              ||  |||    |   |  || |||||||
Db        244 GTGCAAATAGCCATCATGACCTTCAAAG 271


RESULT 14
US-09-966-880A-11/c
; Sequence 11, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
;   LENGTH: 87
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-11

  Query Match             7.2%;  Score 8.4;  DB 1;  Length 87;
  Best Local Similarity   57.7%;  Pred. No. 1.5e+02;
  Matches   15;  Conservative    0;  Mismatches   11;  Indels    0;  Gaps    0;

Qy         88 TCTCCAGACAGCTTCGGCGCATCCTT 113
              | ||||||  |  |    || ||| |
Db         74 TGTCCAGAGTGTCTTCTTGCCTCCCT 49


Search completed: March 10, 2004, 13:40:48
Job time : 0.990586 secs

                                GenCore version 5.1.6
                        Copyright (c) 1993 - 2004  Compugen Ltd.


OM nucleic - nucleic search, using sw model
```

Run on: March 10, 2004, 13:38:36 ; Search time 18.5479 Seconds
(without alignments)
3.483 Million cell updates/sec

Title: US-09-966-880A-15
Perfect score: 2172
Sequence: 1 cccctgtatgaggttgatga.....agtatgatggaataaacttg 2172

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 0.5

Searched: 7 seqs, 14872 residues

Total number of hits satisfying chosen parameters: 14

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : US09966880A.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Result No.	Score	% Query Match	Length	DB	ID	Description
	1	2172	100.0	2172	1	US-09-966-880A-15	Sequence 15, Appl
	2	2172	100.0	6564	1	US-09-966-880A-10	Sequence 10, Appl
c	3	178.6	8.2	5514	1	US-09-966-880A-9	Sequence 9, Appli
	4	174.2	8.0	5514	1	US-09-966-880A-9	Sequence 9, Appli
c	5	29.4	1.4	6564	1	US-09-966-880A-10	Sequence 10, Appl
c	6	26	1.2	2172	1	US-09-966-880A-15	Sequence 15, Appl
c	7	16	0.7	116	1	US-09-966-880A-14	Sequence 14, Appl
	8	14.8	0.7	148	1	US-09-966-880A-12	Sequence 12, Appl
c	9	14.8	0.7	148	1	US-09-966-880A-12	Sequence 12, Appl
	10	14.4	0.7	87	1	US-09-966-880A-11	Sequence 11, Appl
	11	13.8	0.6	116	1	US-09-966-880A-14	Sequence 14, Appl
c	12	13.4	0.6	87	1	US-09-966-880A-11	Sequence 11, Appl
c	13	13.4	0.6	271	1	US-09-966-880A-13	Sequence 13, Appl
	14	12	0.6	271	1	US-09-966-880A-13	Sequence 13, Appl

ALIGNMENTS

RESULT 1
US-09-966-880A-15
; Sequence 15, Application US/09966880A
; GENERAL INFORMATION:
; APPLICANT: Honjo, Tasuku
; APPLICANT: Muramatsu, Masamichi
; TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
; FILE REFERENCE: 06501-088001
; CURRENT APPLICATION NUMBER: US/09/966,880A
; CURRENT FILING DATE: 2001-09-28
; PRIOR APPLICATION NUMBER: PCT/JP00/01918
; PRIOR FILING DATE: 2000-03-28
; PRIOR APPLICATION NUMBER: JP 11-371382
; PRIOR FILING DATE: 1999-12-27
; PRIOR APPLICATION NUMBER: JP 11-178999
; PRIOR FILING DATE: 1999-06-24
; PRIOR APPLICATION NUMBER: JP 11-87192
; PRIOR FILING DATE: 1999-03-29
; NUMBER OF SEQ ID NOS: 36
; SOFTWARE: FastSEQ for Windows Version 4.0

; SEQ ID NO 15
; LENGTH: 2172
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-966-880A-15

Query Match 100.0%; Score 2172; DB 1; Length 2172;
Best Local Similarity 100.0%; Pred. No. 6.3e-59;
Matches 2172; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 CCCCTGTATGAGGTTGATGACTTACGAGACGCATTTCGTACTTTGGGACTTTGATAGCAA 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 CCCCTGTATGAGGTTGATGACTTACGAGACGCATTTCGTACTTTGGGACTTTGATAGCAA 60

Qy         61 CTTCCAGGAATGTCACACACGATGAAATATCTCTGCTGAAGACAGTGGATAAAAAACAGT 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 CTTCCAGGAATGTCACACACGATGAAATATCTCTGCTGAAGACAGTGGATAAAAAACAGT 120

Qy        121 CCTTCAAGTCTTCTCTGTTTTTATTCTTCAACTCTCACTTTCTTAGAGTTTACAGAAAAA 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CCTTCAAGTCTTCTCTGTTTTTATTCTTCAACTCTCACTTTCTTAGAGTTTACAGAAAAA 180

Qy        181 ATATTTATATACGACTCTTTAAAAAGATCTATGTCTTGAAAATAGAGAAGGAACACAGGT 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 ATATTTATATACGACTCTTTAAAAAGATCTATGTCTTGAAAATAGAGAAGGAACACAGGT 240

Qy        241 CTGGCCAGGGACGTGCTGCAATTGGTGCAGTTTTGAATGCAACATTGTCCCCTACTGGGA 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 CTGGCCAGGGACGTGCTGCAATTGGTGCAGTTTTGAATGCAACATTGTCCCCTACTGGGA 300

Qy        301 ATAACAGAACTGCAGGACCTGGGAGCATCCTAAAGTGTCAACGTTTTTCTATGACTTTTA 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 ATAACAGAACTGCAGGACCTGGGAGCATCCTAAAGTGTCAACGTTTTTCTATGACTTTTA 360

Qy        361 GGTAGGATGAGAGCAGAAGGTAGATCCTAAAAAGCATGGTGAGAGGATCAAATGTTTTTA 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 GGTAGGATGAGAGCAGAAGGTAGATCCTAAAAAGCATGGTGAGAGGATCAAATGTTTTTA 420

Qy        421 TATCAACATCCTTTATTATTTGATTCATTTGAGTTAACAGTGGTGTTAGTGATAGATTTT 480
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        421 TATCAACATCCTTTATTATTTGATTCATTTGAGTTAACAGTGGTGTTAGTGATAGATTTT 480

Qy        481 TCTATTCTTTTCCCTTGACGTTTACTTTCAAGTAACACAAACTCTTCCATCAGGCCATGA 540
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        481 TCTATTCTTTTCCCTTGACGTTTACTTTCAAGTAACACAAACTCTTCCATCAGGCCATGA 540

Qy        541 TCTATAGGACCTCCTAATGAGAGTATCTGGGTGATTGTGACCCCAAACCATCTCTCCAAA 600
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        541 TCTATAGGACCTCCTAATGAGAGTATCTGGGTGATTGTGACCCCAAACCATCTCTCCAAA 600

Qy        601 GCATTAATATCCAATCATGCGCTGTATGTTTTAATCAGCAGAAGCATGTTTTTATGTTTG 660
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        601 GCATTAATATCCAATCATGCGCTGTATGTTTTAATCAGCAGAAGCATGTTTTTATGTTTG 660

Qy        661 TACAAAAGAAGATTGTTATGGGTGGGGATGGAGGTATAGACCATGCATGGTCACCTTCAA 720
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        661 TACAAAAGAAGATTGTTATGGGTGGGGATGGAGGTATAGACCATGCATGGTCACCTTCAA 720

Qy        721 GCTACTTTAATAAAGGATCTTAAAATGGGCAGGAGGACTGTGAACAAGACACCCTAATAA 780
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        721 GCTACTTTAATAAAGGATCTTAAAATGGGCAGGAGGACTGTGAACAAGACACCCTAATAA 780

Qy        781 TGGGTTGATGTCTGAAGTAGCAAATCTTCTGGAAACGCAAACTCTTTTAAGGAAGTCCCT 840
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        781 TGGGTTGATGTCTGAAGTAGCAAATCTTCTGGAAACGCAAACTCTTTTAAGGAAGTCCCT 840

Qy        841 AATTTAGAAACACCCACAAACTTCACATATCATAATTAGCAAACAATTGGAAGGAAGTTG 900
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        841 AATTTAGAAACACCCACAAACTTCACATATCATAATTAGCAAACAATTGGAAGGAAGTTG 900

Qy        901 CTTGAATGTTGGGGAGAGGAAAATCTATTGGCTCTCGTGGGTCTCTTCATCTCAGAAATG 960
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        901 CTTGAATGTTGGGGAGAGGAAAATCTATTGGCTCTCGTGGGTCTCTTCATCTCAGAAATG 960
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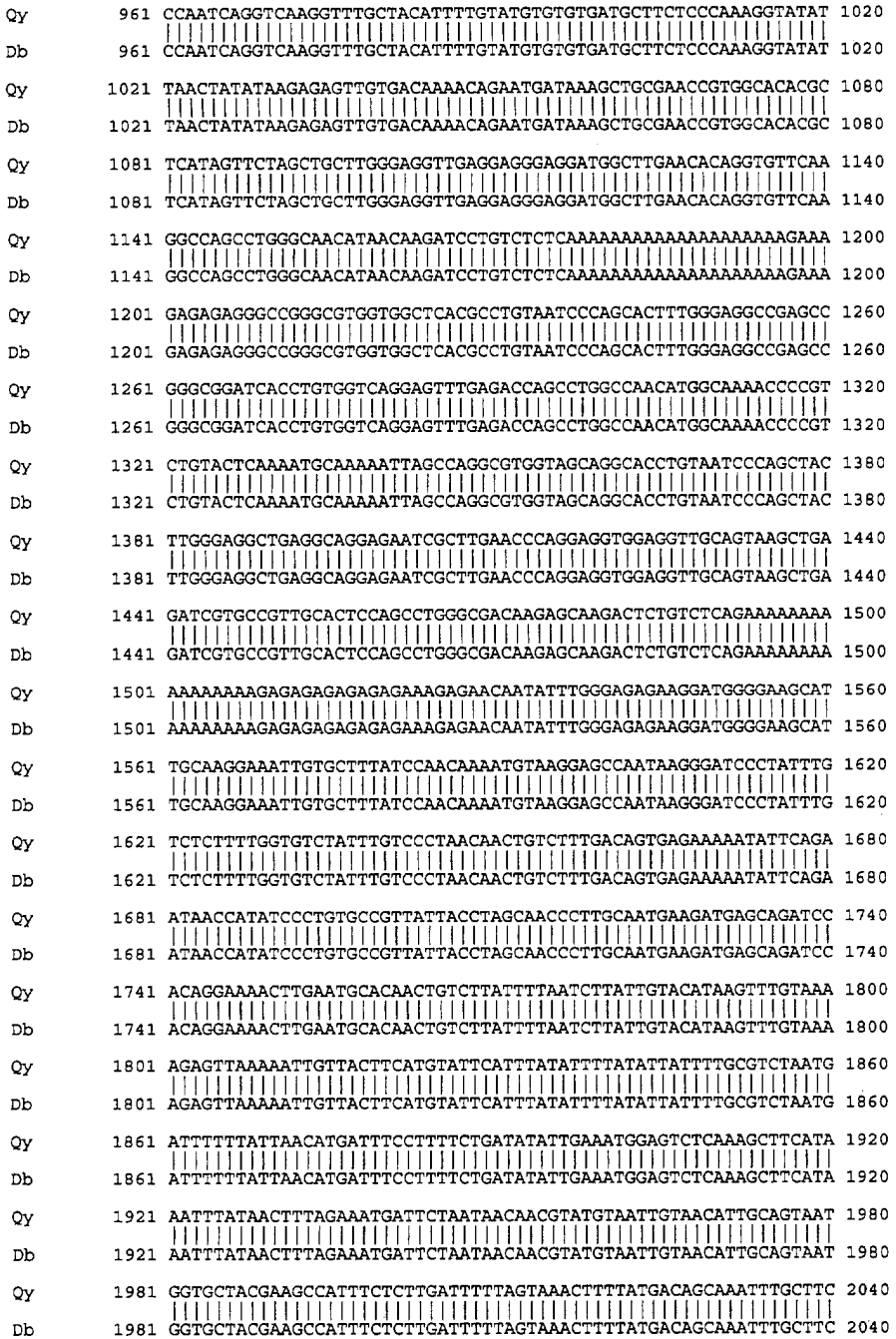
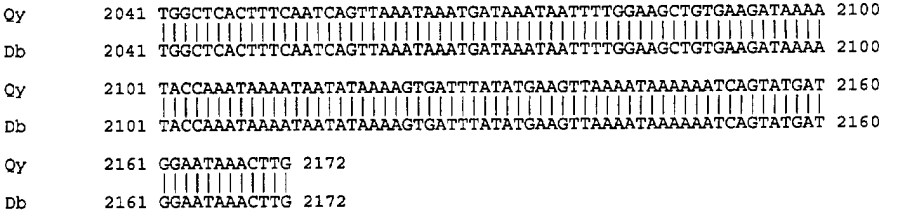
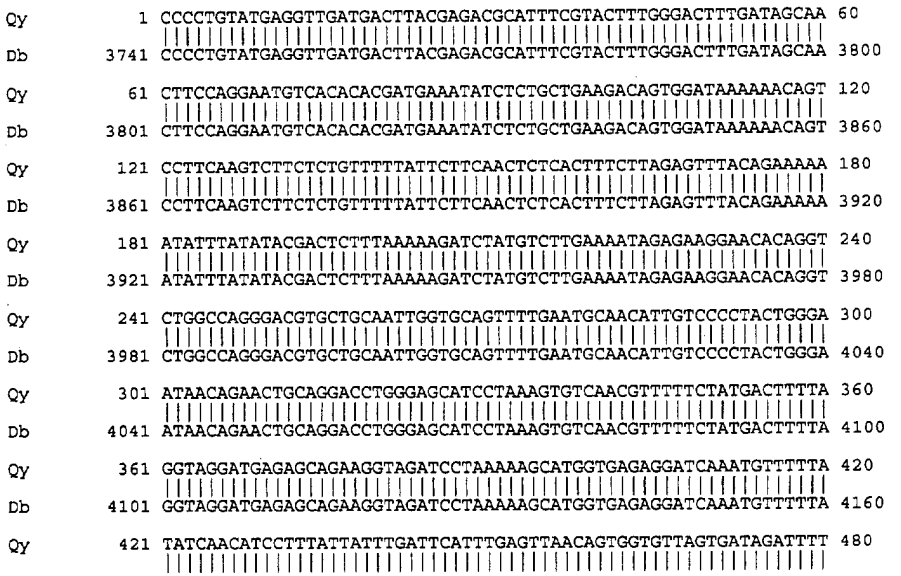




RESULT 2
US-09-966-880A-10
; Sequence 10, Application US/09966880A
; GENERAL INFORMATION:
; APPLICANT: Honjo, Tasuku
; APPLICANT: Muramatsu, Masamichi
; TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
; FILE REFERENCE: 06501-088001
; CURRENT APPLICATION NUMBER: US/09/966,880A
; CURRENT FILING DATE: 2001-09-28
; PRIOR APPLICATION NUMBER: PCT/JP00/01918
; PRIOR FILING DATE: 2000-03-28
; PRIOR APPLICATION NUMBER: JP 11-371382
; PRIOR FILING DATE: 1999-12-27
; PRIOR APPLICATION NUMBER: JP 11-178999
; PRIOR FILING DATE: 1999-06-24
; PRIOR APPLICATION NUMBER: JP 11-87192
; PRIOR FILING DATE: 1999-03-29
; NUMBER OF SEQ ID NOS: 36
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
; LENGTH: 6564
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-966-880A-10

Query Match 100.0%; Score 2172; DB 1; Length 6564;
Best Local Similarity 100.0%; Pred. No. 2.8e-58;
Matches 2172; Conservative 0; Mismatches 0; Indels 0; Gaps 0;



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Db       4161 TATCAACATCCTTTATTATTTGATTCATTTGAGTTAACAGTGGTGTTAGTGATAGATTTT 4220
Qy        481 TCTATTCTTTTCCCTTGACGTTTACTTTCAAGTAACACAAACTCTTCCATCAGGCCATGA 540
Db       4221 TCTATTCTTTTCCCTTGACGTTTACTTTCAAGTAACACAAACTCTTCCATCAGGCCATGA 4280
Qy        541 TCTATAGGACCTCCTAATGAGAGTATCTGGGTGATTGTGACCCCAAACCATCTCTCCAAA 600
Db       4281 TCTATAGGACCTCCTAATGAGAGTATCTGGGTGATTGTGACCCCAAACCATCTCTCCAAA 4340
Qy        601 GCATTAATATCCAATCATGCGCTGTATGTTTTAATCAGCAGAAGCATGTTTTTATGTTTG 660
Db       4341 GCATTAATATCCAATCATGCGCTGTATGTTTTAATCAGCAGAAGCATGTTTTTATGTTTG 4400
Qy        661 TACAAAAGAAGATTGTTATGGGTGGGGATGGAGGTATAGACCATGCATGGTCACCTTCAA 720
Db       4401 TACAAAAGAAGATTGTTATGGGTGGGGATGGAGGTATAGACCATGCATGGTCACCTTCAA 4460
Qy        721 GCTACTTTAATAAAGGATCTTAAAATGGGCAGGAGGACTGTGAACAAGACACCCTAATAA 780
Db       4461 GCTACTTTAATAAAGGATCTTAAAATGGGCAGGAGGACTGTGAACAAGACACCCTAATAA 4520
Qy        781 TGGGTTGATGTCTGAAGTAGCAAATCTTCTGGAAACGCAAACTCTTTTAAGGAAGTCCCT 840
Db       4521 TGGGTTGATGTCTGAAGTAGCAAATCTTCTGGAAACGCAAACTCTTTTAAGGAAGTCCCT 4580
Qy        841 AATTTAGAAACACCCACAAACTTCACATATCATAATTAGCAAACAATTGGAAGGAAGTTG 900
Db       4581 AATTTAGAAACACCCACAAACTTCACATATCATAATTAGCAAACAATTGGAAGGAAGTTG 4640
Qy        901 CTTGAATGTTGGGGAGAGGAAAATCTATTGGCTCTCGTGGGTCTCTTCATCTCAGAAATG 960
Db       4641 CTTGAATGTTGGGGAGAGGAAAATCTATTGGCTCTCGTGGGTCTCTTCATCTCAGAAATG 4700
Qy        961 CCAATCAGGTCAAGGTTTGCTACATTTTGTATGTGTGTGATGCTTCTCCCAAAGGTATAT 1020
Db       4701 CCAATCAGGTCAAGGTTTGCTACATTTTGTATGTGTGTGATGCTTCTCCCAAAGGTATAT 4760
Qy       1021 TAACTATATAAGAGAGTTGTGACAAAACAGAATGATAAAGCTGCGAACCGTGGCACACGC 1080
Db       4761 TAACTATATAAGAGAGTTGTGACAAAACAGAATGATAAAGCTGCGAACCGTGGCACACGC 4820
Qy       1081 TCATAGTTCTAGCTGCTTGGGAGGTTGAGGAGGGAGGATGGCTTGAACACAGGTGTTCAA 1140
Db       4821 TCATAGTTCTAGCTGCTTGGGAGGTTGAGGAGGGAGGATGGCTTGAACACAGGTGTTCAA 4880
Qy       1141 GGCCAGCCTGGGCAACATAACAAGATCCTGTCTCTCAAAAAAAAAAAAAAAAAAAAGAAA 1200
Db       4881 GGCCAGCCTGGGCAACATAACAAGATCCTGTCTCTCAAAAAAAAAAAAAAAAAAAAGAAA 4940
Qy       1201 GAGAGAGGGCCGGGCGTGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGCC 1260
Db       4941 GAGAGAGGGCCGGGCGTGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGCC 5000
Qy       1261 GGGCGGATCACCTGTGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGCAAAACCCCGT 1320
Db       5001 GGGCGGATCACCTGTGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGCAAAACCCCGT 5060
Qy       1321 CTGTACTCAAAATGCAAAAATTAGCCAGGCGTGGTAGCAGGCACCTGTAATCCCAGCTAC 1380
Db       5061 CTGTACTCAAAATGCAAAAATTAGCCAGGCGTGGTAGCAGGCACCTGTAATCCCAGCTAC 5120
Qy       1381 TTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGAGGTGGAGGTTGCAGTAAGCTGA 1440
Db       5121 TTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGAGGTGGAGGTTGCAGTAAGCTGA 5180
Qy       1441 GATCGTGCCGTTGCACTCCAGCCTGGGCGACAAGAGCAAGACTCTGTCTCAGAAAAAAAA 1500
Db       5181 GATCGTGCCGTTGCACTCCAGCCTGGGCGACAAGAGCAAGACTCTGTCTCAGAAAAAAAA 5240
Qy       1501 AAAAAAAAGAGAGAGAGAGAGAAAGAGAACAATATTTGGGAGAGAAGGATGGGGAAGCAT 1560
Db       5241 AAAAAAAAGAGAGAGAGAGAGAAAGAGAACAATATTTGGGAGAGAAGGATGGGGAAGCAT 5300
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Qy       1561 TGCAAGGAAATTGTGCTTTATCCAACAAAATGTAAGGAGCCAATAAGGGATCCCTATTTG 1620
Db       5301 TGCAAGGAAATTGTGCTTTATCCAACAAAATGTAAGGAGCCAATAAGGGATCCCTATTTG 5360
Qy       1621 TCTCTTTTGGTGTCTATTTGTCCCTAACAACTGTCTTTGACAGTGAGAAAAATATTCAGA 1680
Db       5361 TCTCTTTTGGTGTCTATTTGTCCCTAACAACTGTCTTTGACAGTGAGAAAAATATTCAGA 5420
Qy       1681 ATAACCATATCCCTGTGCCGTTATTACCTAGCAACCCTTGCAATGAAGATGAGCAGATCC 1740
Db       5421 ATAACCATATCCCTGTGCCGTTATTACCTAGCAACCCTTGCAATGAAGATGAGCAGATCC 5480
Qy       1741 ACAGGAAAACTTGAATGCACAACTGTCTTATTTTAATCTTATTGTACATAAGTTTGTAAA 1800
Db       5481 ACAGGAAAACTTGAATGCACAACTGTCTTATTTTAATCTTATTGTACATAAGTTTGTAAA 5540
Qy       1801 AGAGTTAAAAATTGTTACTTCATGTATTCATTTATATTTTATATTATTTTGCGTCTAATG 1860
Db       5541 AGAGTTAAAAATTGTTACTTCATGTATTCATTTATATTTTATATTATTTTGCGTCTAATG 5600
Qy       1861 ATTTTTTATTAACATGATTTCCTTTTCTGATATATTGAAATGGAGTCTCAAAGCTTCATA 1920
Db       5601 ATTTTTTATTAACATGATTTCCTTTTCTGATATATTGAAATGGAGTCTCAAAGCTTCATA 5660
Qy       1921 AATTTATAACTTTAGAAATGATTCTAATAACAACGTATGTAATTGTAACATTGCAGTAAT 1980
Db       5661 AATTTATAACTTTAGAAATGATTCTAATAACAACGTATGTAATTGTAACATTGCAGTAAT 5720
Qy       1981 GGTGCTACGAAGCCATTTCTCTTGATTTTTAGTAAACTTTTATGACAGCAAATTTGCTTC 2040
Db       5721 GGTGCTACGAAGCCATTTCTCTTGATTTTTAGTAAACTTTTATGACAGCAAATTTGCTTC 5780
Qy       2041 TGGCTCACTTTCAATCAGTTAAATAAATGATAAATAATTTTGGAAGCTGTGAAGATAAAA 2100
Db       5781 TGGCTCACTTTCAATCAGTTAAATAAATGATAAATAATTTTGGAAGCTGTGAAGATAAAA 5840
Qy       2101 TACCAAATAAAATAATATAAAAGTGATTTATATGAAGTTAAAATAAAAAATCAGTATGAT 2160
Db       5841 TACCAAATAAAATAATATAAAAGTGATTTATATGAAGTTAAAATAAAAAATCAGTATGAT 5900
Qy       2161 GGAATAAACTTG 2172
Db       5901 GGAATAAACTTG 5912
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RESULT 3
US-09-966-880A-9/c
; Sequence 9, Application US/09966880A
; GENERAL INFORMATION:
; APPLICANT: Honjo, Tasuku
; APPLICANT: Muramatsu, Masamichi
; TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
; FILE REFERENCE: 06501-088001
; CURRENT APPLICATION NUMBER: US/09/966,880A
; CURRENT FILING DATE: 2001-09-28
; PRIOR APPLICATION NUMBER: PCT/JP00/01918
; PRIOR FILING DATE: 2000-03-28
; PRIOR APPLICATION NUMBER: JP 11-371382
; PRIOR FILING DATE: 1999-12-27
; PRIOR APPLICATION NUMBER: JP 11-178999
; PRIOR FILING DATE: 1999-06-24
; PRIOR APPLICATION NUMBER: JP 11-87192
; PRIOR FILING DATE: 1999-03-29
; NUMBER OF SEQ ID NOS: 36
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
; LENGTH: 5514
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: intron
; LOCATION: (1)...(1031)

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;   FEATURE:
;   NAME/KEY: exon
;   LOCATION: (1032)...(1118)
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1119)...(5514)
US-09-966-880A-9

  Query Match             8.2%;  Score 178.6;  DB 1;  Length 5514;
  Best Local Similarity   83.1%;  Pred. No. 0.12;
  Matches  202;  Conservative    1;  Mismatches   40;  Indels    0;  Gaps    0;

Qy       1272 CTGTGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGCAAAACCCCGTCTGTACTCAAA 1331
             ||| ||||||||||||||||||||||||||||||||||||||||  |||||||  ||| |||| |||
Db       5512 CTGAGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAA 5453

Qy       1332 ATGCAAAAATTAGCCAGGCGTGGTAGCAGGCACCTGTAATCCCAGCTACTTGGGAGGCTG 1391
             || |||| |||||||  | ||||| |  ||| ||||||||||| ||||  |||||||||
Db       5452 ATACAAACATTAGCCGAGTGTGGTGGTGGGCGCCTGTAATCCCATCTACCCGGGAGGCTG 5393

Qy       1392 AGGCAGGAGAATCGCTTGAACCCAGGAGGTGGAGGTTGCAGTAAGCTGAGATCGTGCCGT 1451
             ||||   ||  | ||||||||||||||||||||||||||||||||| ||||  |:|| |||| |
Db       5392 AGGCGACAGCTTTGCTTGAACCCAGGAGGTGGAGGTTGCAGTGAGCTATGRTCATGCCAT 5333

Qy       1452 TGCACTCCAGCCTGGGCGACAAGAGCAAGACTCTGTCTCAGAAAAAAAAAAAAAAAAAGAG 1511
             | |||||||||  |||||  ||||||  |||  ||||   |||||  ||||||||||||||| |
Db       5332 TCCACTCCAGCATGGGCAACAAGACCAAAACTCCATCTCAAAAAAAAAAAAAAAAAAAAA 5273

Qy       1512 AGA 1514
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Db       5272 AAA 5270


RESULT 4
US-09-966-880A-9
; Sequence 9, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
;   LENGTH: 5514
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1)...(1031)
;   FEATURE:
;   NAME/KEY: exon
;   LOCATION: (1032)...(1118)
;   FEATURE:
;   NAME/KEY: intron
;   LOCATION: (1119)...(5514)
US-09-966-880A-9

  Query Match             8.0%;  Score 174.2;  DB 1;  Length 5514;
  Best Local Similarity   74.8%;  Pred. No. 0.16;
  Matches  255;  Conservative    0;  Mismatches   78;  Indels    8;  Gaps    3;

Qy       1194 AAAGAAAGAGAGAGGGCCGGGCGTGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGG 1253
             ||||  | | |||  ||| || ||||||||||||||||||||||||||||||| |||||||
Db       3542 AAAGTGAAACAGACAGCCAGGTGTGGTGGCTCACGCCTGTAATCCCAGCACTCTGGGAGG 3601

Qy       1254 CCGAGCCGGGCGGATCACCTGTGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGCAAA 1313
             | |||  ||| ||||| | || |  | ||||||  ||||||||||  ||||||||||||
Db       3602 CTGAGGTGGGTGGATCGCTTGAGCCCTGGAGTTCAAGACCAGCCTGAGCAACATGGCAAA 3661

Qy       1314 ACCCCGTCTGTACTCAAAATGCAAAAATTAGCCAGGCGTGGTAGCAGGCACCTGTAATCC 1373
             |||| || | |       | ||||||||||||| ||| |||| ||| |  |||||  |||
Db       3662 ACCCTGTTTCT------ATAACAAAAATTAGCCGGGCATGGTGGCATGTGCCTGTGGTCC 3715

Qy       1374 CAGCTACTTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGAGGTGGAGGTTGCAGT 1433
             |||||||| ||| |||||||||||||||||  | || ||||||||||  ||| |||| |
Db       3716 CAGCTACTAGGG-GGCTGAGGCAGGAGAATCTTTGGAGCCCAGGAGGTCAAGGCTGCACT 3774

Qy       1434 AAGCTGAGATCGTGCCGTTGCACTCCAGCCTGGGCGACAAGAGCAAGACTCTGTCTCAGA 1493
             ||| | | | | |||  |||||||||||||||| |||| || | ||||  || |||| |
Db       3775 GAGCAGTGCTTGCGCCACTGCACTCCAGCCTGGGTGACAGGA-CCAGACCTTGCCTCAAA 3833

Qy       1494 AAAAAAAAAAAAAAAAGAGAGAGAGAGAGAAAGAGAACAATA 1534
             |||| || || ||||   | | | | |   | | ||| | |
Db       3834 AAAATAAGAAGAAAAATTAAAAATAAATGGAAACAACTACA 3874


RESULT 5
US-09-966-880A-10/c
; Sequence 10, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
;   LENGTH: 6564
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-10

  Query Match             1.4%;  Score 29.4;  DB 1;  Length 6564;
  Best Local Similarity   56.8%;  Pred. No. 1.9;
  Matches   54;  Conservative    0;  Mismatches   41;  Indels    0;  Gaps    0;

Qy       1495 AAAAAAAAAAAAAAAGAGAGAGAGAGAAAGAGAACAATATTTGGGAGAGAAGGATGGGG 1554
             ||| || |||| ||   | || ||| |||| |||| ||  | | |    | |||| |
Db       3489 AAACAACAAAAGAAAGAAAAGGGAGGGAAAAGGAACCTTAGCAGAGGGCTCTGAATGGTG 3430

Qy       1555 AAGCATTGCAAGGAAATTGTGCTTTATCCAACAAA 1589
             || ||    ||| |||   || | |     | |||
Db       3429 AAACAGCAGAAGAAAAAGCTGATGTGGAGGAGAAA 3395


RESULT 6
US-09-966-880A-15/c
; Sequence 15, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
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;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
;   LENGTH: 2172
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-15

  Query Match             1.2%;  Score 26;  DB 1;  Length 2172;
  Best Local Similarity   59.5%;  Pred. No. 5.7;
  Matches   44;  Conservative    0;  Mismatches   30;  Indels    0;  Gaps    0;

Qy       1775 AATCTTATTGTACATAAGTTTGTAAAAGAGTTAAAAATTGTTACTTCATGTATTCATTTA 1834
              |||  |||   | |||| |   || | ||  ||| |||| |||  || | ||   | |||
Db       1848 AATAATATAAAATATAAATGAATACATGAAGTAACAATTTTTAACTCTTTTACAAACTTA 1789

Qy       1835 TATTTTATATTATT 1848
              | |   |||  |||
Db       1788 TGTACAATAAGATT 1775


RESULT 7
US-09-966-880A-14/c
; Sequence 14, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
;   LENGTH: 116
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-14

  Query Match             0.7%;  Score 16;  DB 1;  Length 116;
  Best Local Similarity   50.0%;  Pred. No. 26;
  Matches   40;  Conservative    0;  Mismatches   40;  Indels    0;  Gaps    0;

Qy       1953 ACGTATGTAATTGTAACATTGCAGTAATGGTGCTACGAAGCCATTTCTCTTGATTTTTAG 2012
              |||  |   |||| | |    ||  |      |||  |||     ||   | | ||| ||
Db         86 ACGAACTGAATTTTCATGCAGCCCTTCCCAGGCTTTGAAAGTTCTTTCGTGGTTTTCTAC 27

Qy       2013 TAAACTTTTATGACAGCAAA 2032
              |||  | ||    ||| |||
Db         26 AAAAGTATTCCAGCAGTAAA 7


RESULT 8
US-09-966-880A-12
; Sequence 12, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 148
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-12

  Query Match             0.7%;  Score 14.8;  DB 1;  Length 148;
  Best Local Similarity   56.0%;  Pred. No. 35;
  Matches   28;  Conservative    0;  Mismatches   22;  Indels    0;  Gaps    0;

Qy       1876 GATTTCCTTTTCTGATATATTGAAATGGAGTCTCAAAGCTTCATAAATTT 1925
              ||  | | | |   |  || ||||  || ||  ||  ||| |||   |||
Db         70 GACCTACCTGTGCTACGTAGTGAAGAGGCGTGACAGTGCTACATCCTTTT 119


RESULT 9
US-09-966-880A-12/c
; Sequence 12, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 148
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-12

  Query Match             0.7%;  Score 14.8;  DB 1;  Length 148;
  Best Local Similarity   64.7%;  Pred. No. 35;
  Matches   22;  Conservative    0;  Mismatches   12;  Indels    0;  Gaps    0;

Qy       1523 AAGAGAACAATATTTGGGAGAGAAGGATGGGGAA 1556
              |||| ||| | | |   | || |||||||  | |
Db        139 AAGATAACCAAAGTCCAGTGAAAAGGATGTAGCA 106


RESULT 10
US-09-966-880A-11
; Sequence 11, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
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;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
;   LENGTH: 87
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-11

  Query Match             0.7%;  Score 14.4;  DB 1;  Length 87;
  Best Local Similarity   65.6%;  Pred. No. 21;
  Matches   21;  Conservative    0;  Mismatches   11;  Indels    0;  Gaps    0;

Qy        227 GAAGGAACACAGGTCTGGCCAGGGACGTGCTG 258
              ||||  | |    ||||||| | ||| ||| |
Db         19 GAAGTGAGATTTTTCTGGCCTGAGACTTGCAG 50


RESULT 11
US-09-966-880A-14
; Sequence 14, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 14
;   LENGTH: 116
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-14

  Query Match             0.6%;  Score 13.8;  DB 1;  Length 116;
  Best Local Similarity   63.6%;  Pred. No. 30;
  Matches   21;  Conservative    0;  Mismatches   12;  Indels    0;  Gaps    0;

Qy       1545 AAGGATGGGGAAGCATTGCAAGGAAATTGTGCT 1577
              || |   ||||||   |||| | |||||  | |
Db         51 AAAGCCTGGGAAGGGCTGCATGAAAATTCAGTT 83


RESULT 12
US-09-966-880A-11/c
; Sequence 11, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
;   LENGTH: 87
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-11

  Query Match             0.6%;  Score 13.4;  DB 1;  Length 87;
  Best Local Similarity   52.7%;  Pred. No. 23;
  Matches   29;  Conservative    0;  Mismatches   26;  Indels    0;  Gaps    0;

Qy       1777 TCTTATTGTACATAAGTTTGTAAAAGAGTTAAAAATTGTTACTTCATGTATTCAT 1831
              |||| |||         |   ||   ||     |||| | | ||||||  || | ||
Db         63 TCTTCTTGCCTCCCTGCAAGTCTCAGGCCAGAAAAATCTCACTTCAATTAATGAT 9


RESULT 13
US-09-966-880A-13/c
; Sequence 13, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 13
;   LENGTH: 271
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-13

  Query Match             0.6%;  Score 13.4;  DB 1;  Length 271;
  Best Local Similarity   52.7%;  Pred. No. 41;
  Matches   29;  Conservative    0;  Mismatches   26;  Indels    0;  Gaps    0;

Qy        307 GAACTGCAGGACCTGGGAGCATCCTAAAGTGTCAACGTTTTTCTATGACTTTTAG 361
              ||||     |||  || |||| |     || ||| | ||       |  ||  | |||
Db         87 GAACCAGGTGACGCGGTAGCAGCGGCCAGGGTCTAGGTCCCAGTCCGAGATGTAG 33


RESULT 14
US-09-966-880A-13
; Sequence 13, Application US/09966880A
; GENERAL INFORMATION:
;  APPLICANT: Honjo, Tasuku
;  APPLICANT:  Muramatsu, Masamichi
;  TITLE OF INVENTION: NOVEL CYTIDINE DEAMINASE
;  FILE REFERENCE: 06501-088001
;  CURRENT APPLICATION NUMBER: US/09/966,880A
;  CURRENT FILING DATE:  2001-09-28
;  PRIOR APPLICATION NUMBER: PCT/JP00/01918
;  PRIOR FILING DATE: 2000-03-28
;  PRIOR APPLICATION NUMBER: JP 11-371382
;  PRIOR FILING DATE: 1999-12-27
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;  PRIOR APPLICATION NUMBER: JP 11-178999
;  PRIOR FILING DATE: 1999-06-24
;  PRIOR APPLICATION NUMBER: JP 11-87192
;  PRIOR FILING DATE: 1999-03-29
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 13
;   LENGTH: 271
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-966-880A-13

  Query Match             0.6%;  Score 12;  DB 1;  Length 271;
  Best Local Similarity   48.5%;  Pred. No. 42;
  Matches   33;  Conservative    0;  Mismatches   35;  Indels    0;  Gaps    0;

Qy        522 CTCTTCCATCAGGCCATGATCTATAGGACCTCCTAATGAGAGTATCTGGGTGATTGTGAC 581
              | | |||   || || || |      |  | |   ||| |     ||   ||   | ||
Db         87 CACCTCCTGGAGCCCCTGCTACGACTGTGCCCGACATGTGGCCGACTTTCTGCGAGGGAA 146

Qy        582 CCCAAACC 589
              ||| ||||
Db        147 CCCCAACC 154


Search completed: March 10, 2004, 13:40:49
Job time : 19.5479 secs
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